Design Guidelines for Tall Buildings

in

Beverly, MA

January 2007

Table of Contents

Introduction and Purpose I

Goals of Design Guidelines V

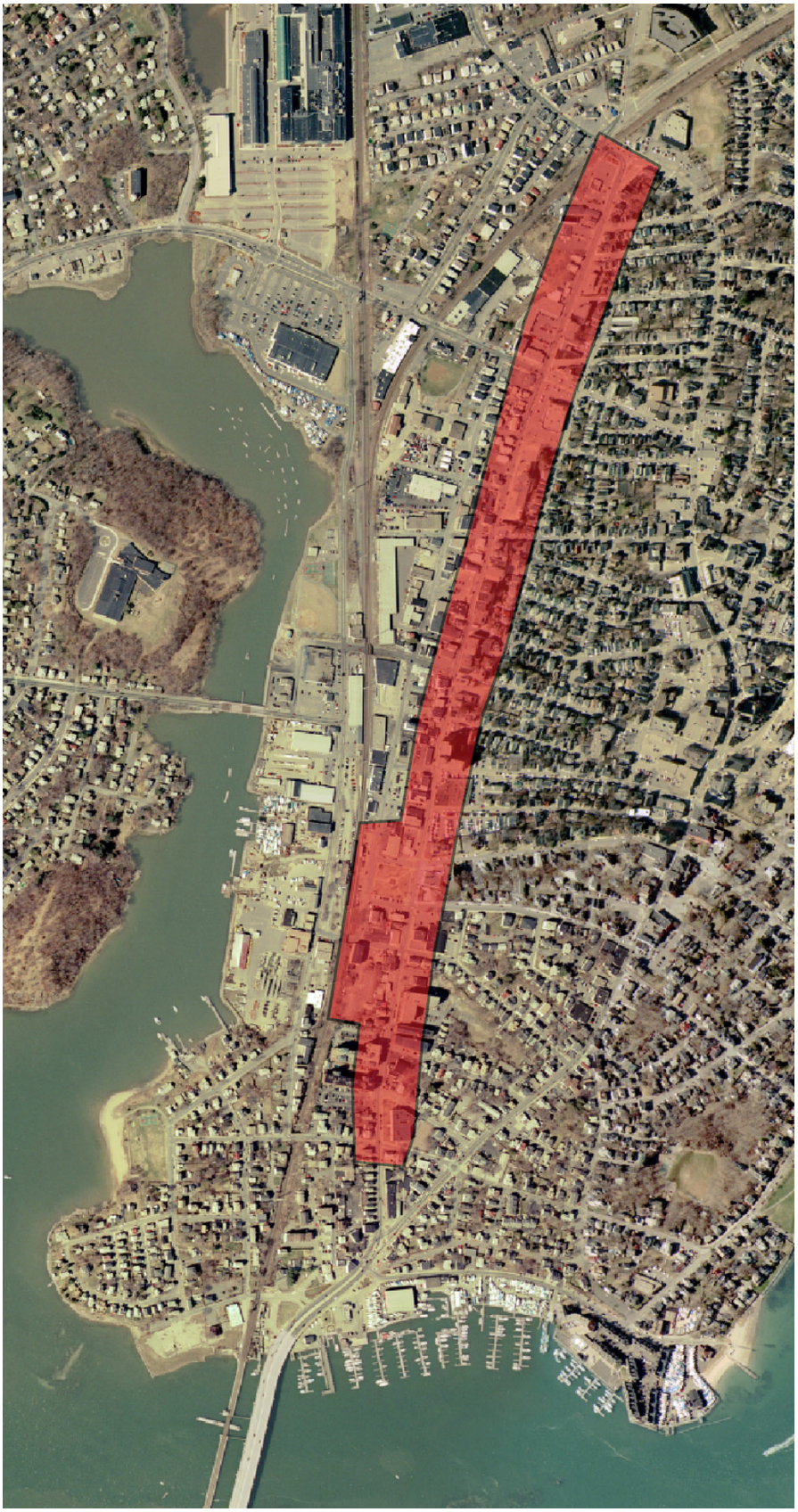
Overview of In-Force Design Guidelines VI

The Study Process VII

Urban Design Overview 2
- Analysis of Existing Conditions 2
- Height and Context 6

Design Guidelines 12
- Overall Height Limitations 12
- Street Walls 14
- Vertical Setbacks 16
- Side and Rear Walls 18
- Corner Buildings 20
- Civic Centers and Open Spaces 22
- Landmarks 24
- View Corridors 26

Other Considerations 30
- Material Palette 30
- Materials of Overall Building Mass 32
- Building Element Materials 34
- Openings + Fenestration 36
- Adaptive Re-use + Expansion 36
- Site Planning Issues + Landscape 38
- Streetscape 46
- Tree Planting 48



Introduction and Purpose

Much of the recent, significant development in Beverly has occurred in the City's downtown, primarily along Rantoul Street. This trend toward downtown redevelopment is likely to continue, given the conclusions of the 2002 Beverly Master Plan which encourages redevelopment of vacant and underutilized buildings over development of outlying open space, and the Smart Growth and transit-oriented development principles now gaining favor across Massachusetts and the country. It is also likely that future downtown buildings will be larger in scale than those that were built in the past, given such factors as rising construction and real estate acquisition costs, City demand for affordable housing components, and the like.

In the spring of 2006, the City briefly discussed a proposal that would have authorized the Planning Board to grant special permits increasing the maximum height of buildings on Rantoul Street by twenty feet (20'). Consideration of the proposal was tabled until the Planning Department could develop guidelines addressing the specific design issues inherent with taller buildings.

Focusing new development in the Rantoul Street area would accomplish many things. It would spur redevelopment of vacant and underutilized sites, increase the tax base, encourage use of public transit over private automobiles, and create a residential market that will help support downtown commercial establishments. However, these positive aspects must be balanced against the concerns that tall buildings could diminish Beverly's "small New England town" character or overwhelm abutting smaller-scale properties.

The design guidelines that follow have been prepared to guide the design of buildings over forty feet (40') in height. Their goals are to harmonize new construction with the existing urban context and to minimize the impact of a tall building's height on its surroundings. The study considered a number of issues presented by the construction of taller buildings including their impact on significant landmarks, abutting properties, and the streetscape. The study area encompasses most of Rantoul Street, from its intersection with School Street northward to its termination at Cabot Street.

Design Guidelines in Context

These design guidelines have been developed to augment the City of Beverly Master Plan prepared in August 2002 by The Cecil Group, Inc., and to complement the existing Beverly Downtown Design Guidelines prepared in December 2003 by Chan Krieger & Associates. It is expected that these guidelines, similar to those adopted in 2003 for smaller-scale development, will be used by the City's land use boards and design committees when reviewing future projects that include buildings over 40' in height. Indeed, although these guidelines were developed for a specific section of Rantoul Street, many of the urban design principles contained herein could be applied, at least in general terms, to projects in other parts of the City.

Goals of Design Guidelines for Tall Buildings

Currently, the City of Beverly Zoning Ordinance prescribes the height limit for new construction in each zoning district. The majority of parcels along Rantoul Street fall into the “CC” (Central Commercial) zoning district, which allows buildings as tall as 55’ unless the lot abuts a moderate or low density residential district. Neither the Zoning Ordinance, the Master Plan, nor existing design guidelines address the specific design details of how taller buildings impact their surroundings.

Historically, the City of Beverly has few tall buildings. Although there are several five- and six-story buildings along Rantoul Street, the majority are three stories (approximately 30-35 feet) or less in height. Therefore, the construction of tall buildings in the future has the potential to significantly transform the character of this part of the City.

Accordingly, the primary goal of these design guidelines is to provide the City’s land use boards, property owners, and developers with guidance on how to construct buildings over 40’ tall to improve the “fit” of new construction within the existing and historic fabric of Beverly’s streetscape.

The study also considers guidelines for:

- The siting of tall buildings within the overall context of the City to help reinforce the elements (landmarks, transportation nodes, connections, gateways, districts, etc.) that define its urban form,
- site planning, site design, and streetscape improvements that respond to and enhance the character of Rantoul Street,
- prescribe best practices for allowing and/or restricting taller structures near historic landmarks, and
- provide guidelines for effective surface and structured parking

Overview of 2003 Beverly Downtown Design Guidelines that Apply to Taller Buildings

The 2003 Beverly Downtown Design Guidelines contain many elements that remain applicable to taller buildings subject to the guidelines of this document. Below is an overview of the most relevant issues, but concerned parties are encouraged to also review the 2003 document which retains jurisdiction over these elements.

Block Façade Design

• Establish sense of continuity along street: rows of buildings on both sides, sidewalks, traffic and parking lanes, range of street furnishings.
• Residential areas have consistency of setback and scale; new, renovated, and infill structures should respect pattern, and sufficient screening of lights and noise from commercial structure should be incorporated to protect quality of residential neighborhoods.

Building Façade Design

Strong framework of scale, form, and materiality to bind buildings together, but ample variety, accent and individual expression to eliminate sterile sameness.

Individual Storefront Design

• Respect basic form of buildings
• Use original materials when possible or select new materials that are compatible.
• Use proportions that are compatible with original architectural style to create continuity along street.
• Maintain existing decoration in façade restoration.
• Do not make building look older than it is.

Rear and Side Walls

• Design all sides of the building, and consider views and pedestrian access/entry from sides or rear.
• Consolidate trash and utility functions behind walls or in interior rooms.
• Remove unsightly mechanical systems and incorporate into building or in screened mechanical penthouses.

Signage Controls

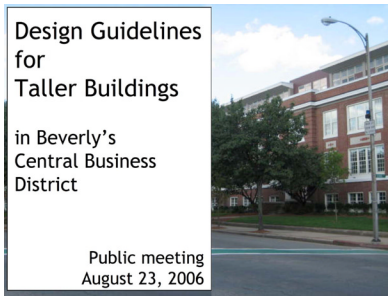
1. Billboards are prohibited within the study area.

2. Reduce municipal and state roadway directional and curb signage.

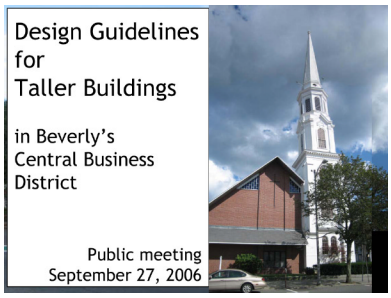
3. Allow/encourage "right angle" signs with smaller elements designed for pedestrians rather than drivers.

The Study Process

The City engaged the firms of Klopfer Design Group and Chan Krieger Sieniewicz to prepare the guidelines. The guidelines study began with an initial meeting with Tina Cassidy, planning director for Beverly, on August 8, 2006 followed by a walking tour of the Downtown Commercial District, where site photos and information were gathered.

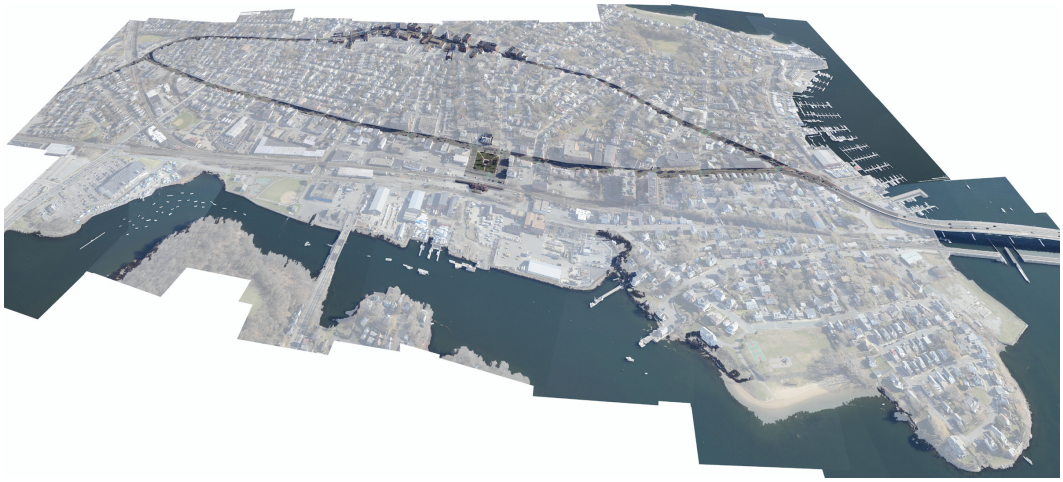


Precedent studies and analysis of Beverly's history and urban form was undertaken over the course of the next two months with the findings being presented at an initial public workshop on August 23, 2006. Existing conditions analysis, precedent examples, and "design vocabulary" were explained at this meeting. The focus of this meeting was to solicit feedback from the citizens of Beverly regarding initial ideas for guidelines, and present case studies from other cities.

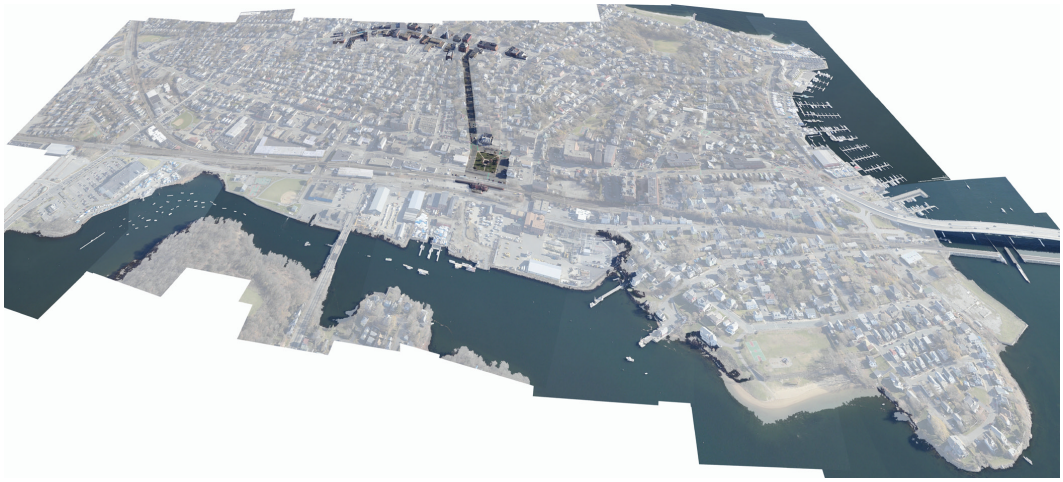


Draft design guidelines for taller buildings were prepared based on the analysis and feedback from the initial public meeting. A computer model of the CC district, and adjoining residential and industrial districts was created to examine proposed guideline prototypes in the context of the larger city. The guidelines were tested using 3 dimensional computer modeling techniques and revised based on these simulations. A second public meeting on September 27th consisted of a presentation of the guidelines in draft form for public comment.

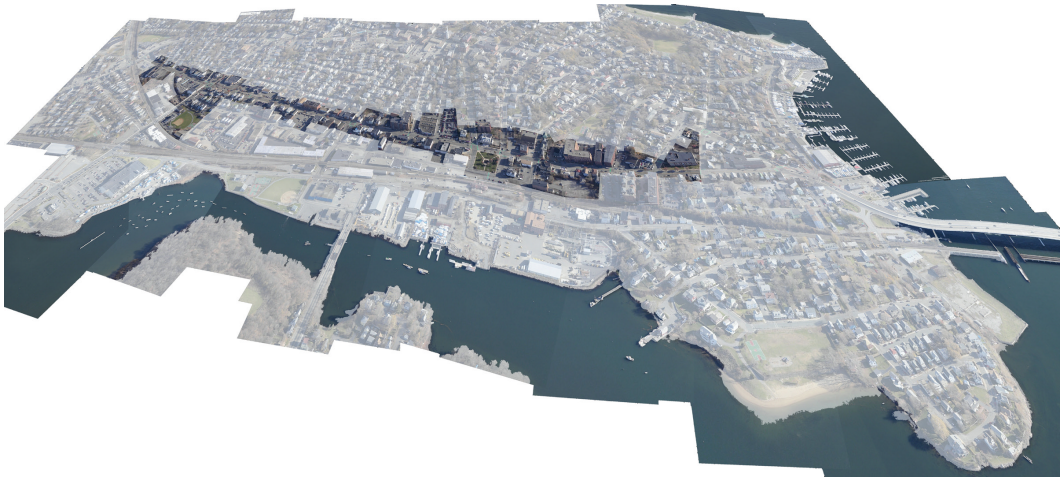
The draft was then refined based on those comments, and the final draft was accepted by the Planning Department in January 2007.



Aerial view highlighting Cabot Street (upper) and Rantoul Street (lower) with their respective centers: the commercial/civic center on Cabot Street, and Veterans Memorial Park on Rantoul Street.



Broadway Street links the two centers.



Project area. Rantoul Street corridor from School Street to the northern intersection with Cabot Street.

Urban Design Overview

Analysis of Existing Conditions

Following an archetypal city form, Beverly's two main roads form a 'high road/low road' relationship. Riding along a north-south ridge between summits, Cabot Street forms the 'high road' with the land falling off to the east and south to Beverly Harbor, and west to Bass River. In contrast, after crossing the shoulder of Goat HIll, Rantoul Street forms the 'low road', running along a lower elevation between the river and the ridge at Cabot Street.

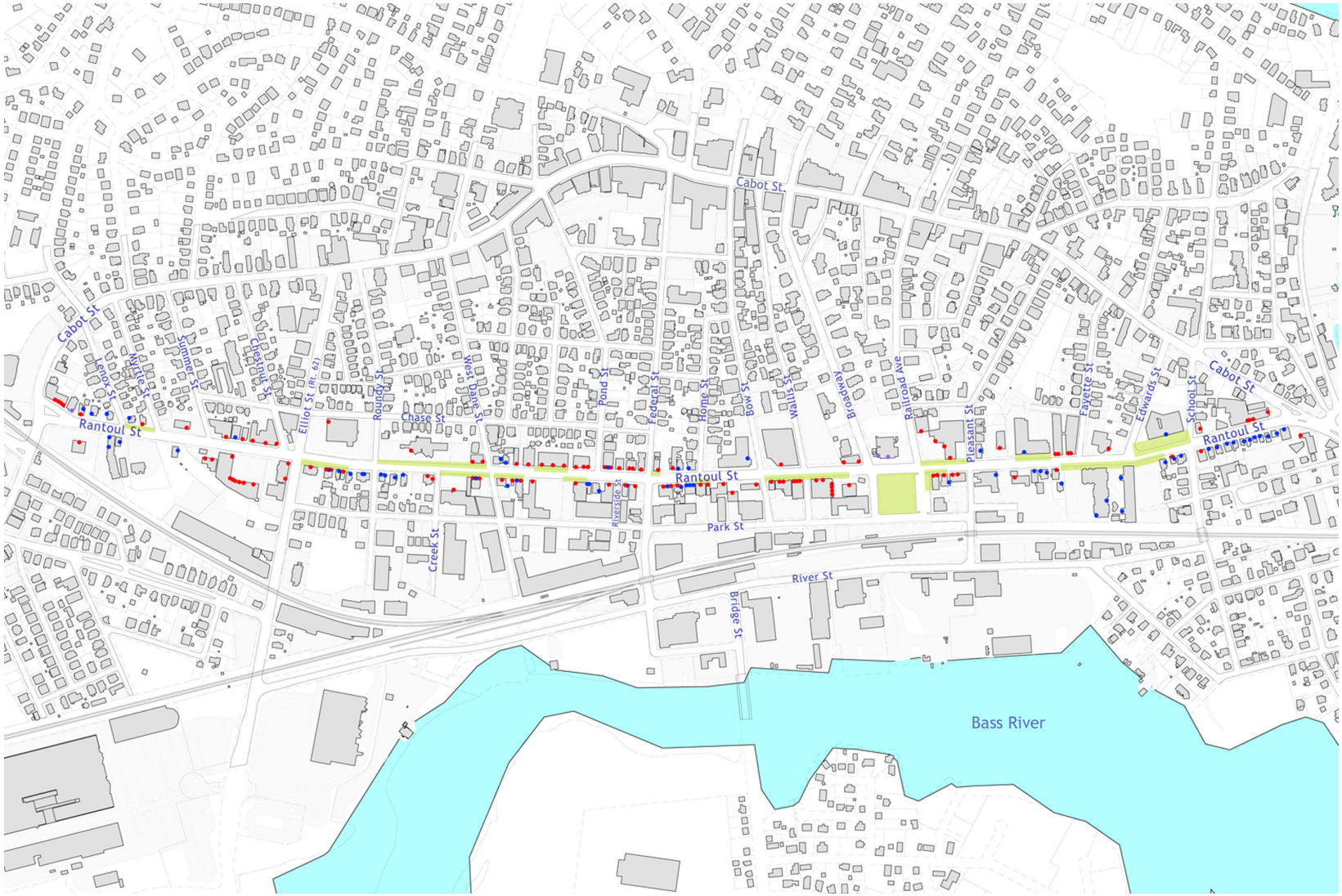
Important civic, religious and institutional uses are located on the 'high road', while the 'low road' is defined by industrial uses with ties to the railroad and past maritime uses. Accordingly, Cabot Street is home to Beverly's central business district in the form of a low-scale commercial streetfront and the hub of civic and religious structures. Cabot Street, between Central and Dane Streets, was designated as a National Historic District in 1982, and contains a number of important historic buildings. Rantoul Street runs parallel to the Bass River and has historically contained a mix of larger industrial and light-industrial uses associated with the water and railroad, with the commuter rail station anchoring the transportation hub for downtown Beverly. The northern end of Rantoul Street houses a mix of residential and smaller scale commercial uses.

The current zoning laws allow a building height limit of 55 feet throughout the CC (central commercial) and RHD (high density residential) zones within the city center, providing that the lot does not abut a moderate density zoning district. In all other cases, the height limit is 35 feet.

Connecting the central business district and transportation hub, Broadway runs across the slope and terminates in Veterans Memorial Park, an important but underdefined open space on Rantoul Street.

Civic and commercial uses on Cabot Street.

Industrial uses along Rantoul Street.



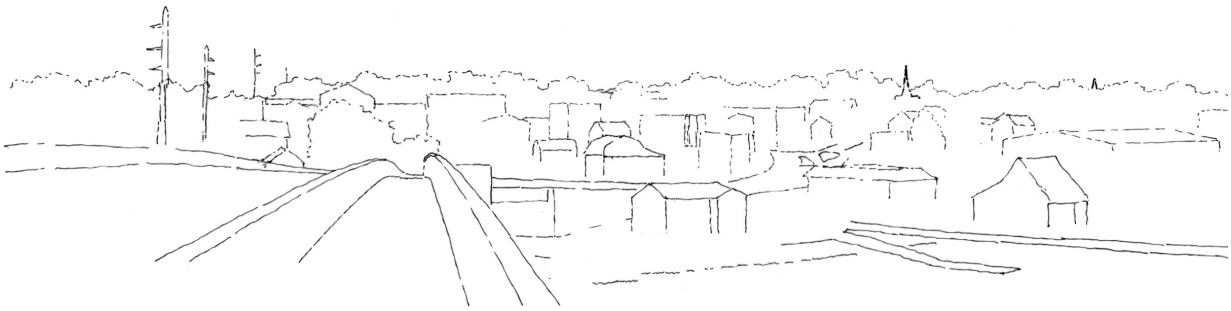
Street Life and Activity

One important aspect of a city's urban realm is the presence or absence of street life or activity. This ephemeral quality of the public realm is difficult to assess and describe, but is related to some physical characteristics of the street and the buildings that define it. The presence of storefronts, transparency of building facade, commercial or retail uses, and multiple doorways opening onto the street are all key elements to vibrant street activity. The greater the number of these elements, the greater the street life and activity along the sidewalk.

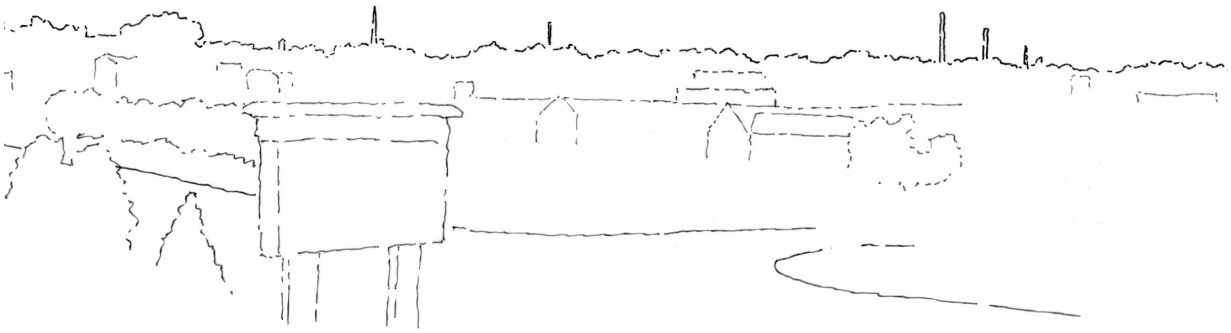
Analysis of existing street life and activity along Rantoul Street reveals inconsistencies that affect the visual character of the street. The Street Life and Activity diagram, opposite, maps the doors to both commercial spaces (red) and residential homes (blue). Areas with higher densities of dots are predictive of greater presence of street life, and vice versa. Sections of the street which have street trees, special pedestrian paving, or other streetscape amenities are shown with green rectangles. Buildings such as the now-vacant car dealership represent block-long parcels with a single entrance, lack of activity, and absence of streetscape, whereas retail blocks such as the buildings between West Dane and Federal Streets are home to vibrant business communities that should be extended by new development and investment in streetscape improvements.

Multiple doorways opening onto street indicate a lively commercial block.

Block with few entrances create dead zones along the street.



Skyline from south (Salem Bridge)



Skyline from northwest (Cummings Center)

Topography

Height and Context

'Tall' is a subjective term based on a series of other physical and perceptual criteria. A 100-foot high building may seem tall adjacent to a neighborhood of lower buildings, but is relatively short in the context of downtown Boston. This perception is based in part on a building's location, and in part on a building's relationship with its immediate neighbors. What are some of the factors that affect the perception of height within Beverly?

Lower scale development on Cabot St.

Existing tall buildings and skyline

Currently, the steeples of the three churches on Cabot Street define Beverly's skyline. Just above the treeline, a number of other large buildings on hill summits, just to the west and north of Cabot Street, also become part of the skyline, particularly when entering the City from the south. Approaching from the west, utility lines along the railroad and the smokestacks of the power plant in Salem punctuate the skyline. The three church steeples have been noted as important landmarks as one approaches downtown Beverly and special consideration should be taken to ensure that they remain prominent figures in the Beverly skyline.

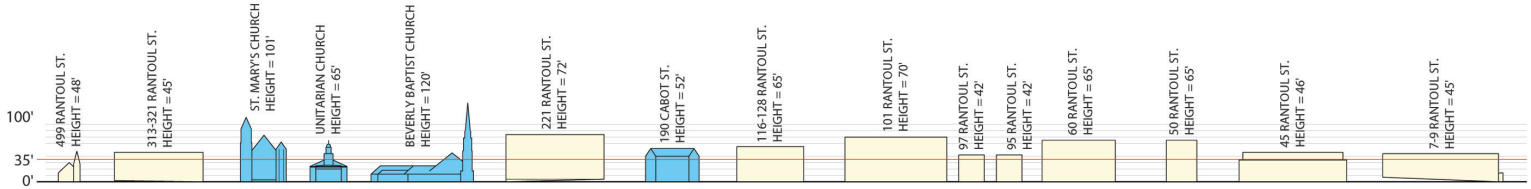
There are a number of taller buildings along Rantoul Street, mostly concentrated between Fayette Street and Broadway. A few are historic, industrial warehouse buildings that have been converted into other uses, the remaining are more recent residential construction. Due to their size, these buildings become defining elements of the skyline, particularly in the winter months when tree cover is absent.

Larger scale and generally taller development on the south half of Rantoul Street.

Role of topography

The high road/low road urban form of Beverly works to the City's advantage as larger buildings have been introduced over time. Typically, buildings along Cabot Street are of a smaller scale than those along Rantoul Street. Those buildings on Cabot that are larger, are often important civic or religious buildings and their architectural character enables them to be perceived as important landmarks and buildings that define the City's character. Sited on the higher elevations of the City, these landmarks become the primary features of the skyline.

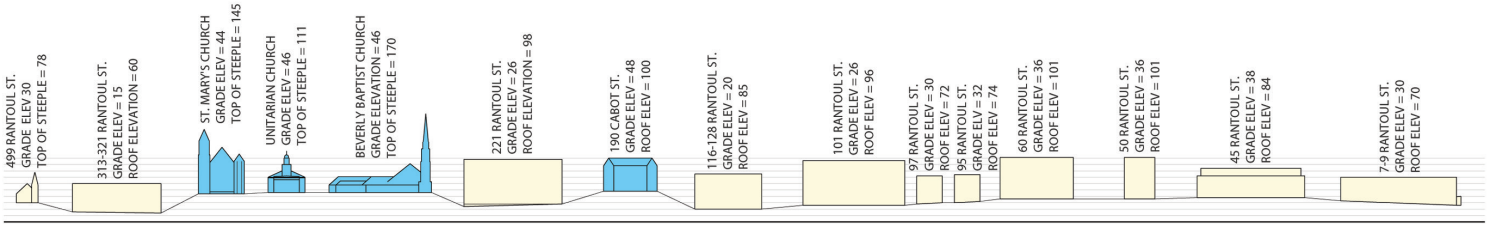
Larger and taller buildings that serve the commercial life of the City were built elsewhere in the community, mostly along areas of lower elevation where connections to water and rail was most



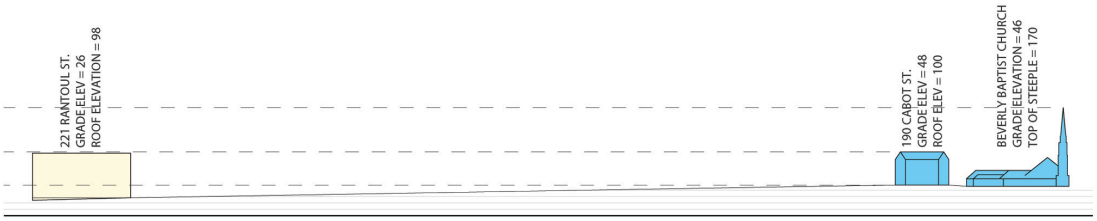
ABSOLUTE BUILDING HEIGHTS

Rantoul St. Buildings

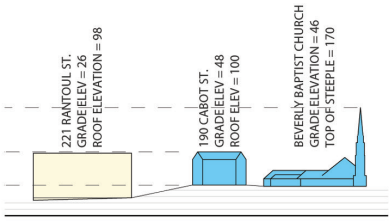
Cabot St. Buildings



RELATIVE BUILDING HEIGHTS



SECTION - RANTOUL ST. TO CABOT ST.



COMPRESSED SECTION

Building Heights and Topography

important. Rantoul Street and the harborfront, with access to shipping traffic and railroad connection, became the commercial center for these commercial and industrial activities. Economic factors in the construction of these buildings yielded less ornate facades, larger floor areas, and closer proximity of the building to the street. Being built on lower ground these larger structures have a diminished impact on the skyline. Therefore, the result of the different elevations of the two roads, buildings on Cabot Street appear to be taller than those on Rantoul Street.

The diagram to the left presents the effect of topography on the relative and perceived heights of a number of the taller buildings in Beverly. When measuring absolute heights (placing all the structures at the same baseline elevation), most of the buildings on Rantoul Street are taller than those on Cabot Street (top diagram). However, when each individual building is raised to its actual topographic elevation, buildings on Cabot Street sit at a higher elevation than those on Rantoul Street giving buildings on Cabot Street the appearance of being taller than they actually are (middle diagram). The bottom left diagram shows the actual spatial relationship, in terms of distance and elevation, between one of the tallest buildings on Rantoul Street, and two of the taller structures on Cabot Street. The bottom right diagram compresses the distance between the buildings to emphasize the effect that topography has on the perceived height of buildings in Beverly.

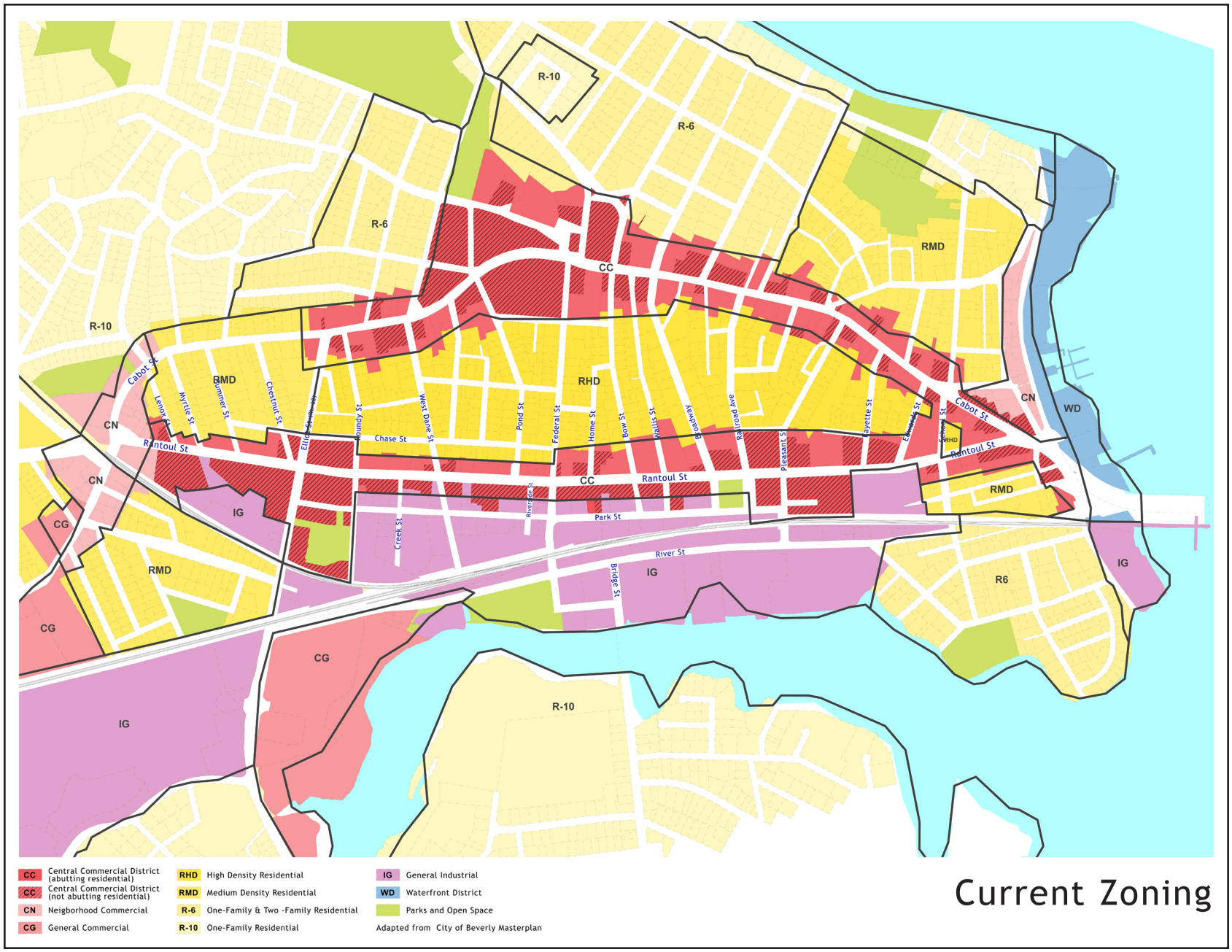
In order to minimize their impact on the skyline and visibility from afar, it is recommended that taller buildings, not of civic, religious, or institutional purpose, be sited at the lower elevations on Rantoul Street. Current regulations prohibit buildings taller than 55 feet on Cabot Street, and should remain so, in keeping with the topographical relationship of the streets.

View up Bow St. toward the Baptist Church.

View up Pond Street toward St. Mary's Church.

View down Edward Street toward Rantoul Street. Note how the rooflines of the taller buildings on Rantoul Street do not appear much taller than the smaller houses on Edward Street.

View toward Universalist Church along Broadway.



Current Zoning

Adjacency of uses

Buildings can have a significant impact on adjacent properties and neighborhoods. To create attractive, livable cities, it is important to keep residential neighborhoods intact and provide definitive thresholds and/or separation from commercial or other uses along the street. Guidelines in this document are established to determine compatible rear and side yard adjacency between low-rise and detached residential and taller buildings. These include:

Typical residential homes in the central RHD zone between Rantoul and Cabot.

- Strategies for rear and side yard adjacency between low-rise and detached residential and taller buildings (residential or commercial):

  Restriction from building over 55' tall immediately adjacent to residential district;

- Adequate setback either in building mass or siting to permit adjacency:

  Require 35' maximum height for rear of buildings fronting commercial street to provide better 'fit;'

  At-grade landscape space or buffer of specified dimension to diminish effect of taller building.

- Take advantage of dis-used industrial parcels and properties for commercial/residential redevelopment of larger size. Larger parcels are more amenable to the bigger footprint required for taller structures.

- Design new development to co-exist with abutting, existing light industrial uses through noise abating construction, control of views, location of fresh air intakes, etc.

Current Building Height Limits

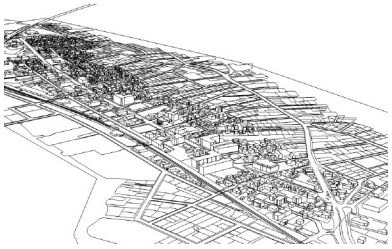
Design Guidelines

Overall Height Limitations

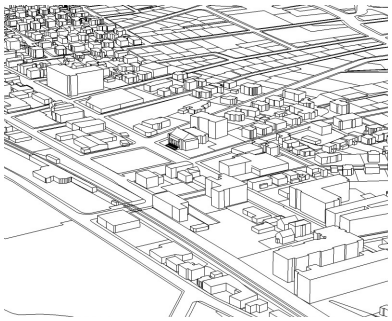
The current height limit for Rantoul Street and the adjacent RHD district is either 35 feet or 55 feet depending on the zoning designation of immediately abutting lots. The large area covered by this homogenous provision allows for disorganized growth and incompatible adjacencies, as well as a tendency toward maximum build-out of each developed site. It also presents the possibility of an undesirable canyon effect if multiple adjacent buildings are built to the 55 feet height limit at the street edge. Allowing buildings of 55 feet to be built up to zone boundaries could also put pressure on lower-rise residential areas for further spread of taller development based on parcel availability and adjacency.

It is recommended that the current height limit be retained, but with tight controls on the height limit within and abutting the RHD district based on a proposed building's relationship to adjacent structures. Raising the current 55 feet height limit indiscriminately may allow development of tall buildings on higher ground or less desirable locations resulting in significant impacts on existing landmarks, historically significant structures and districts and the city's skyline. If allowed, a 75-foot height limit should be governed by the following conditions:

- Street Walls
- Side/Rear Walls
- Max Site Area to Height Limit
- Corner Buildings
- Gateways
- Civic Centers and Open Spaces
- Landmarks
- View Corridors
- Relationship to Open Spaces



Massing model showing aerial view of building massing along Rantoul Street Corridor



Detail of area surrounding the Beverly Depot MBTA station and Veterans Memorial Park.

An example of Transit Oriented Design (TOD).

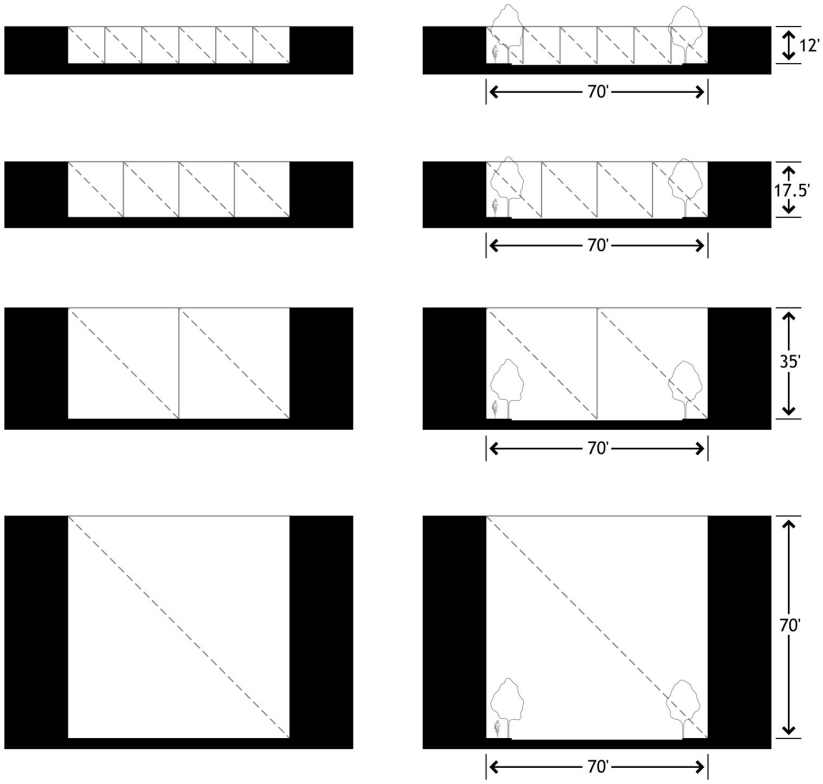
The ratio between street width and height of street wall affects the feel of street environment.

A 6:1 ratio fails to provide spatial enclosure.

A 4:1 ratio is considered the minimum required to create urban space.

A 2:1 ratio provides strong definition of the street space.

A 1:1 ratio begins to feel overwhelming to the pedestrian.



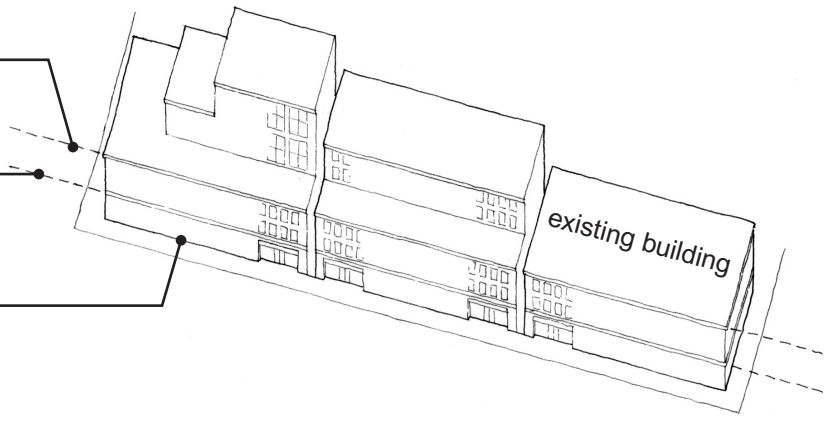
idealized proportions

scaled according to Rantoul Street's approximately 70' R.O.W

Match primary cornice height of adjacent existing buildings.

Match horizontal coursing lines

Maintain consistent setback from street edge where appropriate



Street Walls

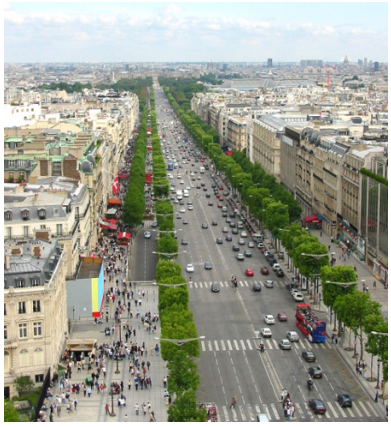
A continuous row of buildings with a consistent setback form a wall that defines the street.

This consistent edge is one of the major determinants of quality of the urban space. Continuity of the street edge, made up of buildings, is essential. Well defined street walls create enclosure and establish an outdoor 'room.' The feel of the space that is created changes as the relationship between the height of the street wall and width of the street from building face to building face changes.

Generally, the front building wall should align with the predominant setback of the context. Sections of a building's face that are set back from the contextual street wall should not be permitted to set back from the street wall for more than 30% of their frontage length. However, providing some variation, especially on longer façades, is desirable, particularly to mark entry, corner conditions, or otherwise break-up the mass of larger buildings. Indentations should setback more than two feet so that changes in plane of the façade are distinct.

Additionally, new construction should match the primary cornice line of adjacent buildings or the immediate context. Articulation of the façade should continue scale and rough proportions of adjacent context framework, if present, or introduce vocabulary of horizontal coursing lines at floor levels, sill or window head heights, cornice or base course lines, and/or vertical coursing lines of columns, pilasters, openings, or building edges/corners to provide human scale to the street wall. These techniques are discussed in greater detail below.

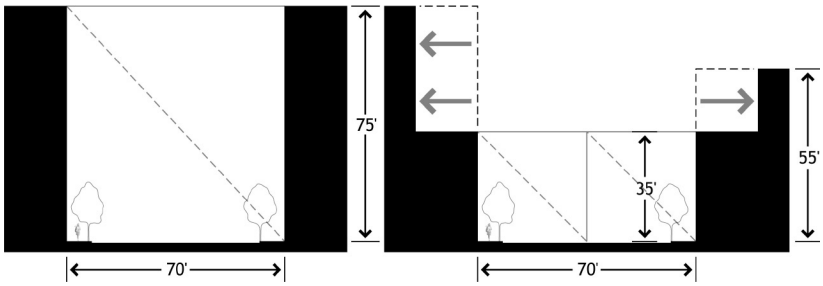
Consistent setback creates a strong street edge.



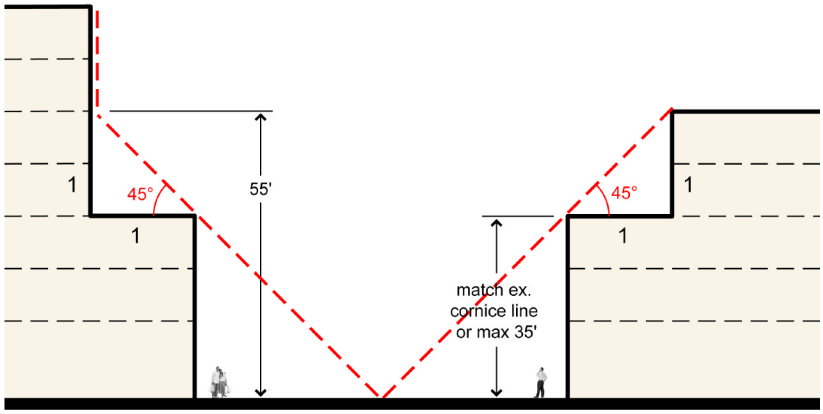
The Champs Elysees, Paris - a larger scale, but classically proportioned urban street.

New building follows streetwall setback, primary cornice line and horizontal coursing of existing building - interpreted in a contemporary architectural expression.

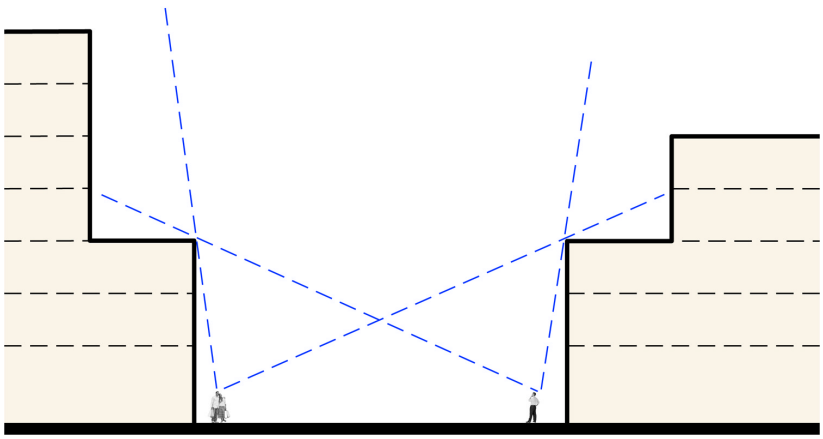
Set upper stories back from the primary building face to avoid canyon effect.



Above the primary cornice line, buildings should be set back at a 1:1 ratio. Above 55' (if permitted) no further setback would be required.



Vertical setbacks obscure views of upper stories from street level lessening the perceived height of a building from pedestrian level.



Vertical setbacks

Stepping upper floors of the building back from the primary building face lessens the perceived height of the building by reducing the visibility of upper stories from street level, and decreasing the apparent building mass along the street. Occupiable use of the horizontal space of the setbacks in the form of terraces, roof gardens or green roofs should be encouraged to provide interest to the street.

Setting upper stories back from the primary building face also changes the perceived width-to-height ratio of the street and allows broader sunlight penetration to the street.

Vertical setbacks should correspond to the predominant cornice height for adjacent buildings to a maximum of 45 feet, or at 35 feet in the absence of tall existing context.

Horizontal distance to vertical height of setback should be in the ratio of 1:1 (45 degree angle) up to a height of 55 feet. If additional building height is permitted, no further setback would be required.

45 Rantoul St. - a good example of vertical setback. Setback portion is faced with predominantly glass curtainwall further distinguishing the two sections.

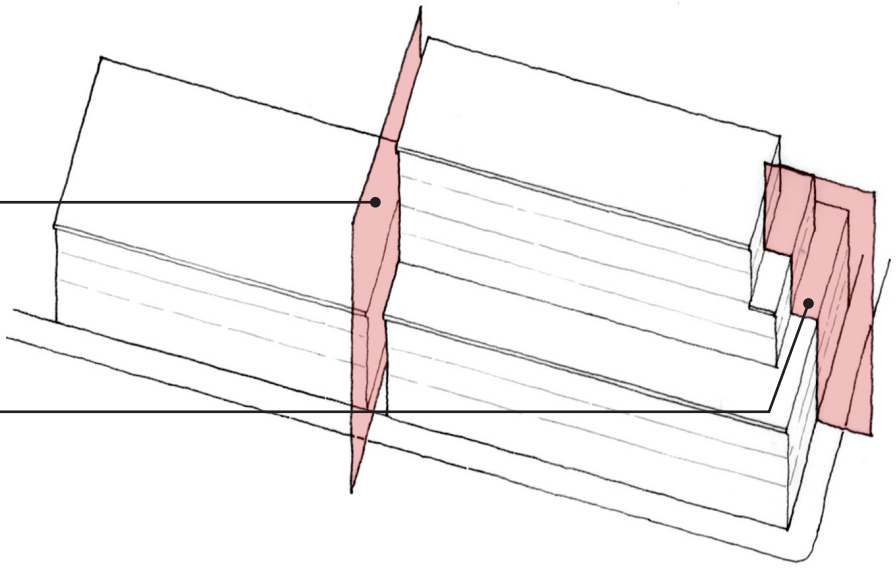
A poor example of vertical setback. Upper story has insufficient setback to read as a different vertical plane, despite the change of material in the wall surface.

The vertical setback provides opportunity for a roof garden or green roof.

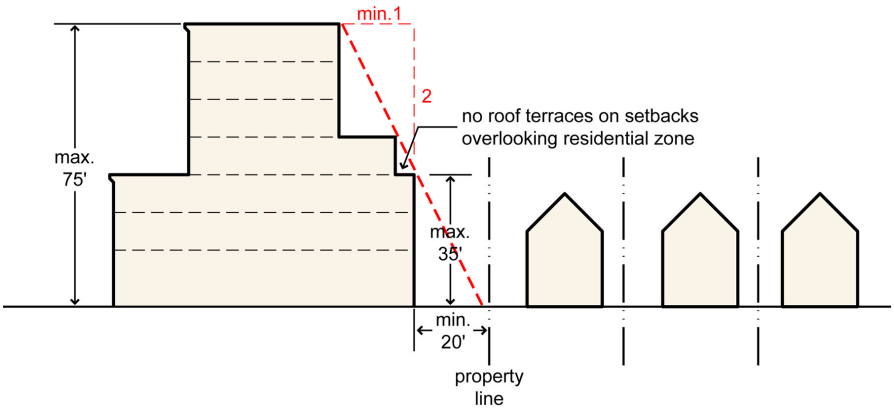
A good example of building setback where top mass is surfaced in contrasting material and color, roof space is occupiable, and horizontal planes in the penthouse floor's window openings create a 'cornice effect' that provides an interesting building top. The base of the building, with large glass surfaces for retail uses, is clearly differentiated from the middle section, characterized by simpler openings and wall treatment.

No sidewall setback required at mid-block or party wall condition

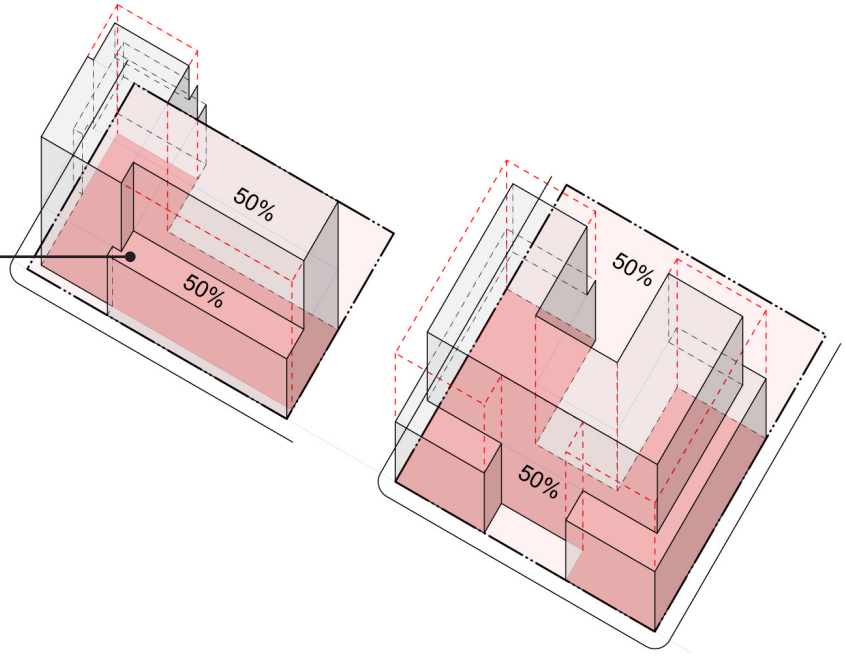
Sidewall setback required at side streets. Upper stories are to be setback at a ratio of 1:2



Adjacent to low rise districts rear walls should be max. 35’ in height and setback a minimum of 20’ from the property line. Upper stories are to be set back at a ratio of 1:2



A maximum of 50% of the site area may be built to the allowed height limit.



Side and Rear Walls

Walls need not be set back when they are perpendicular to a major street (Rantoul or Cabot), as here they do not help define the street wall, but should be set back at a ratio of 1:2 above 55 feet if along a side street. An exception to this guideline is specific corner buildings, described below. The diagram at left illustrates the various side wall relationships.

Upper story is setback on primary facade and side street facade, but not where abutting adjacent building. (Cambridge)

Rear walls have the potential to have the greatest negative impact on adjacent residential developments as the rear of buildings along Rantoul Street abut the core downtown residential district. Consideration must be given to the relationship between the rear wall of a tall building and abutting residential lots.

Where adjacent to low-rise or historic districts (specifically R-6, RMD or CN districts) the tallest point of a building should be set back from the property line a minimum distance equal to half the maximum building height. This guideline does not apply to adjacency to other districts (IG or RHD districts). Rear walls should be a maximum of 35' and be set back from the property line a minimum of twenty feet. Additional building height should setback at a ratio of 1:2. No roof terraces should be allowed where setbacks face onto a residential zone to ensure privacy to those adjacent residential structures.

A successful use of landscape to buffer the rear of a large building from an adjacent smaller scale residential neighborhood. (Cambridge)

In other areas not specifically referred to in the designated districts and adjacencies, rear walls should setback according to the vertical setbacks guideline above.

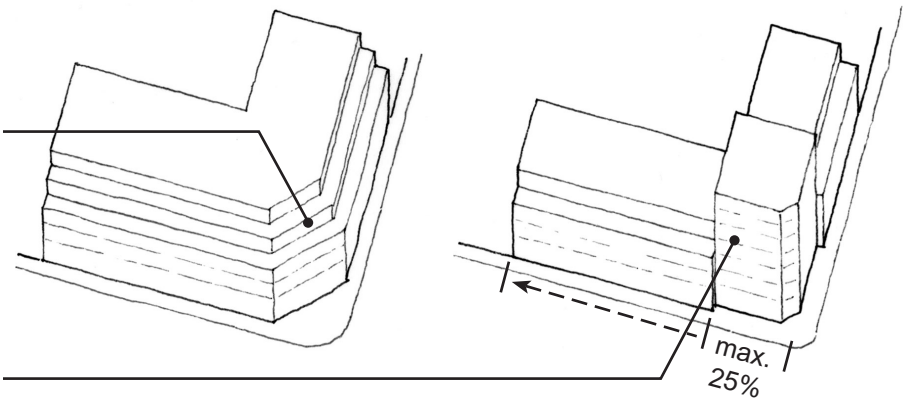
A less successful example - A narrow and sparsley planted landscape zone fails to provide and adequate visual buffer. (Cambridge)

Where side and rear walls present large faces of visible building mass above adjacent structures, the walls should be have sufficient articulation (changes in material, modulation in building face, horizontal coursing continued from front façade, openings if permitted by building code, or blind openings, for example) to mitigate effect of wall upon adjacent buildings and context.

Buildout of the entire floorplate to the maximim allowable height creates large, bulky building massing. To avoid this a maximum of 50% of the site area should be built to the height limit. The remaining 50% shall be a minimum of 10' (or one story) below the height limit, or as determined by the other setback guidelines.

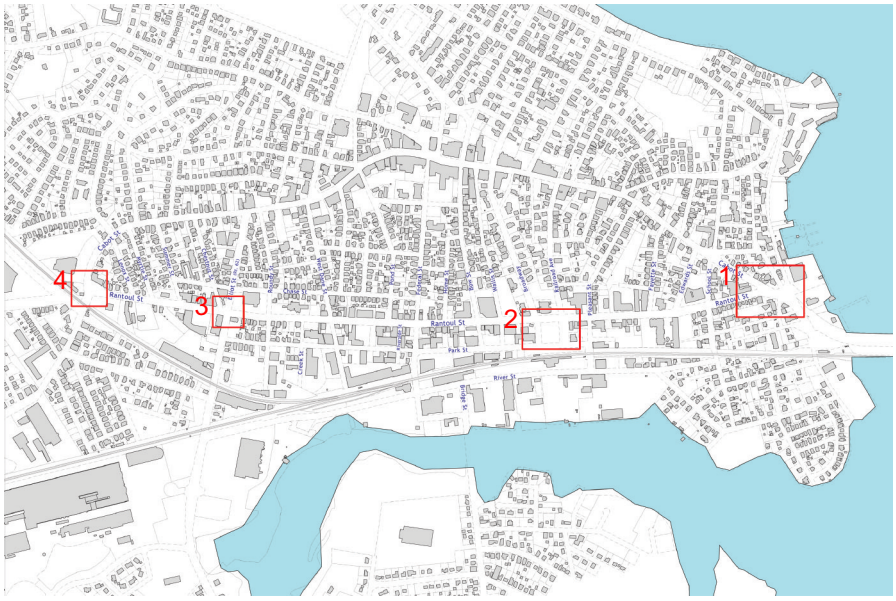
Avoid multiple setbacks at important corners

Provide vertical element with no setbacks at important corners



Gateways along Rantoul St.:

1. Rantoul St. and Cabot St.
2. Veterans Park/MBTA stn.
3. Rantoul St. and Elliot St.
4. Rantoul St. and Cabot St.



Corner Buildings

Buildings can play an important role in defining the street corner as well as demarcating a gateway or the intersection of two major streets.

At important corners, tall buildings should not have vertical setbacks, but rather should express a verticality to mark the importance of the two streets and provide landmark/orientation at that important urban crossing. Horizontal distance of this exception to setback should not exceed 25% of the building face on either major street façade.

Corner elements, however, may be setback a minimum of 4 feet and a maximum of 10' from the primary street wall.

A poor example of a corner building. Multiple setbacks weaken demarcation of the corner. (Toronto)

Another example of excessive use of setbacks on a corner building. (Cambridge)

Special articulation or introduced elements such as a clock, special window condition, canopy, etc. is encouraged to further emphasize the corner.

"Corner buildings", as defined in this section, should only occur at the following corners:

Rantoul/Broadway
Rantoul/Railroad
Rantoul/Elliott
Rantoul/Cabot (both north and south intersections)
Rantoul/Federal
Cabot/Broadway
Cabot/Elliott
Cabot/Federal (east side only)

A good example of a corner building. Vertical element and special treatment indicate the importance of the corner. (Brookline)

Gateways

Both the City's Plan and existing Design Guidelines identify important gateways to the City center that should receive special attention in building design, massing and siting.

These are reinforced as corner buildings, above, and should receive special attention as to how they are viewed when approached from a distance.

Section through Veterans Memorial Park facing Post Office - Existing Conditions

Low single story gas station building set back from corner fails to define or provide street life at the park edge.

Section through Veterans Memorial Park facing Post Office - Suggested Improvements

Widened sidewalk provides room for pedestrians, street tree planting and sidewalk cafes to enliven the park edge.

Provide continuous street edge to define the edges of the park. A taller building element defines the this important corner.

Civic Centers and Open Spaces

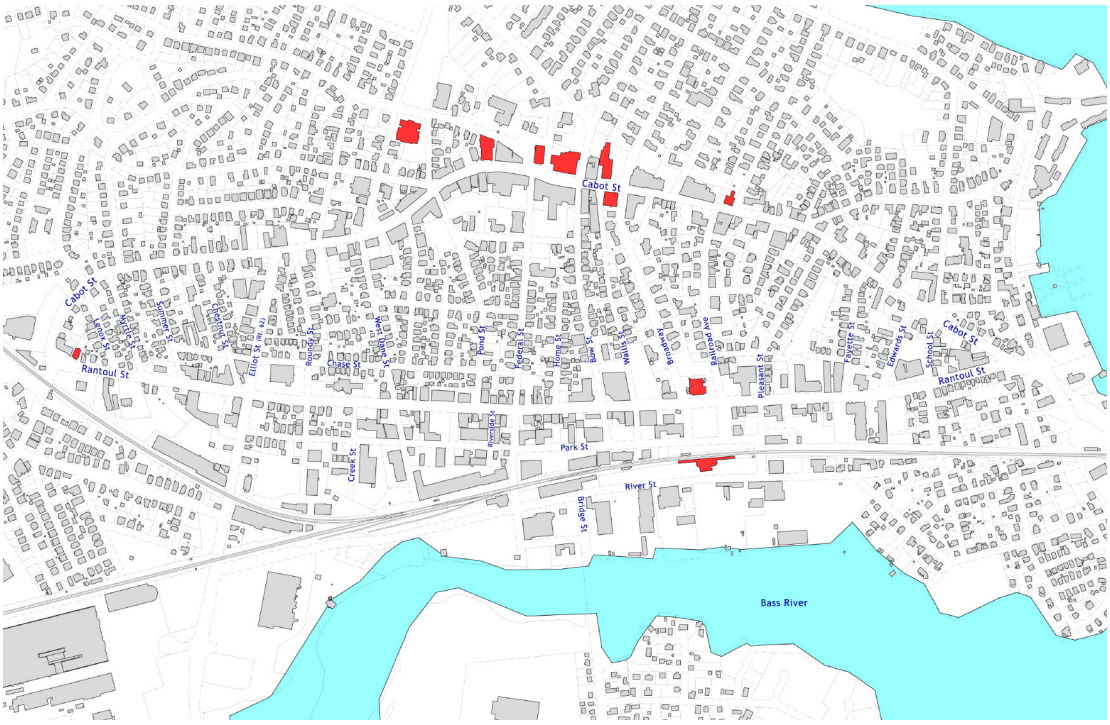
Buildings facing on important civic open spaces, such as Veterans Memorial Park or the green adjacent to City Hall should provide a consistent street edge to define these open spaces.

On the ground floor of abutting buildings, effort should be made to have a highly transparent and active street edge. This should include a number of building or retail space entries, large storefront windows, canopies and pedestrian-scaled signage as outlined in the City of Beverly 2003 Design Guidelines.

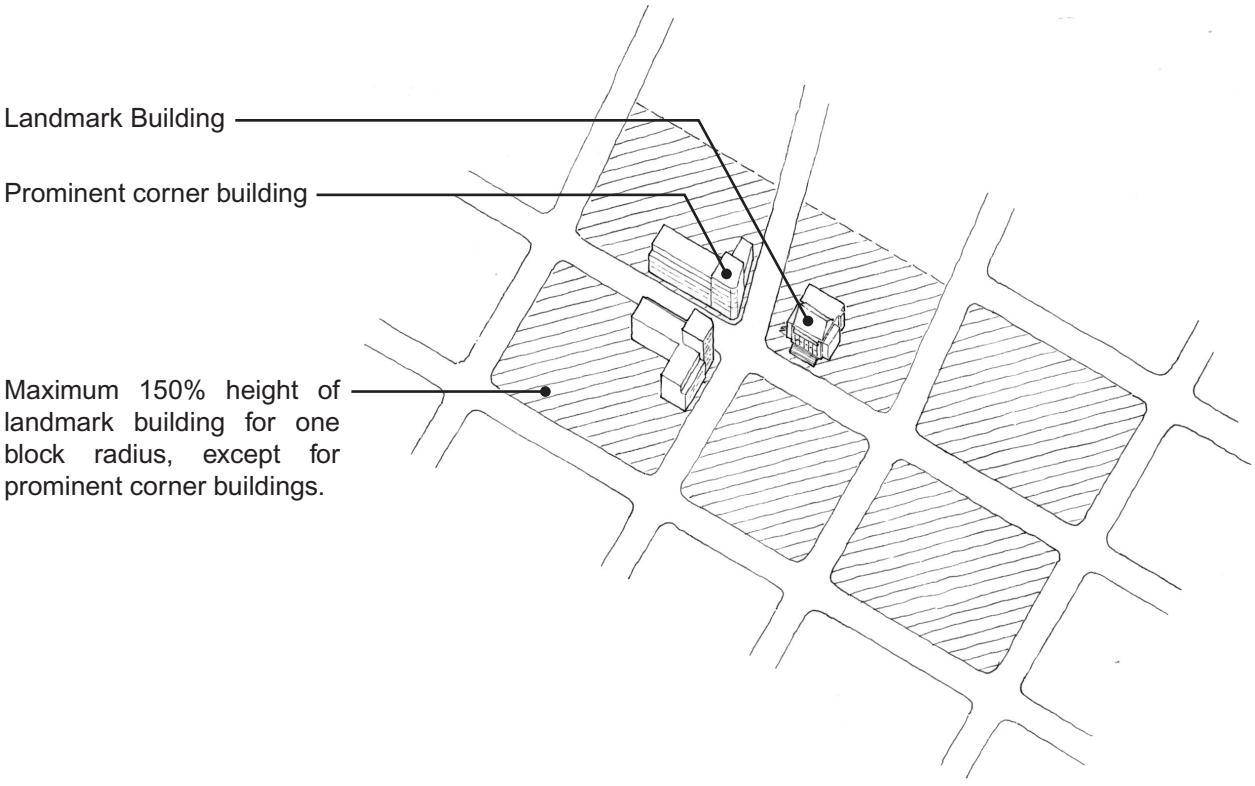
Public amenities such as covered arcade space or widened sidewalk for café or seating spaces are encouraged for building facades that face open space.

The unique architectural quality of both the post office and railroad station set a standard for a higher level of architectural fenestration of facades.

Buildings provide and edge and definition to this urban park. (Cambridge)



Map indicating landmarks in Beverly



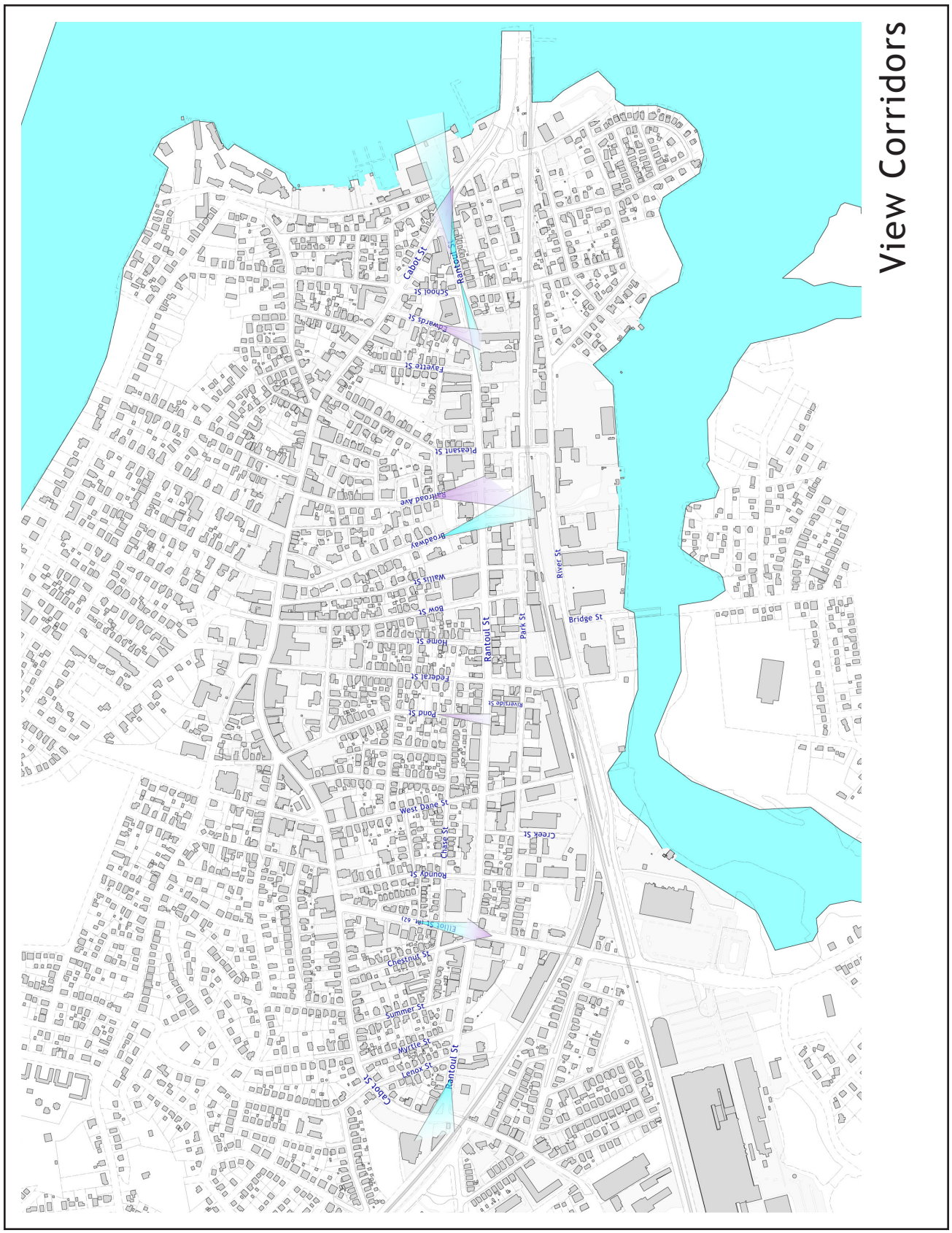
Landmarks

Landmark buildings in Beverly's downtown are unique and architecturally interesting buildings that define the City's character and provide orientation.

To insure prominence of landmark buildings, new construction within a one block radius of a landmark should not be 50% higher than the landmark. An exception to this is to make a prominent corner as described above, and only the corner element should exceed this height limitation.

Heights of adjacent buildings should be restricted to allow the landmark to be viewed against the sky. This is particularly true of church steeples and buildings with towers or unique rooflines or cornice detail such as schools and fire stations. Special attention to these issues, and specific solutions should be addressed on case by case basis.

The railroad station is excepted from these height limitations due to its low building height.


View Corridors
Cabot St
Rantoul St
School St
Edwards St
Fayette St
Pleasant St
Railroad Ave
Broadway
Walls St
Bow St
Home St
Federal St
Pond St
Riverside St
West Dane St
Chase St
Boundy St
Elliot St
Chestnut St
Summer St
Myrtle St
Lenox St
Cabot St
Rantoul St
Rantoul St
Park St
River St
Bridge St
Creek St

View Corridors

A view corridor is an urban space that provides orientation within the City and strongly defines City's character by allowing panoramic or focused views of buildings or spaces.

Sometimes view corridors extend across private property and preserving such corridors can diminish the use of the property. It is important to identify significant view corridors that warrant restriction.

Views to the harbor and connections between Cabot and Rantoul Streets are primary view corridors which should not be obstructed.

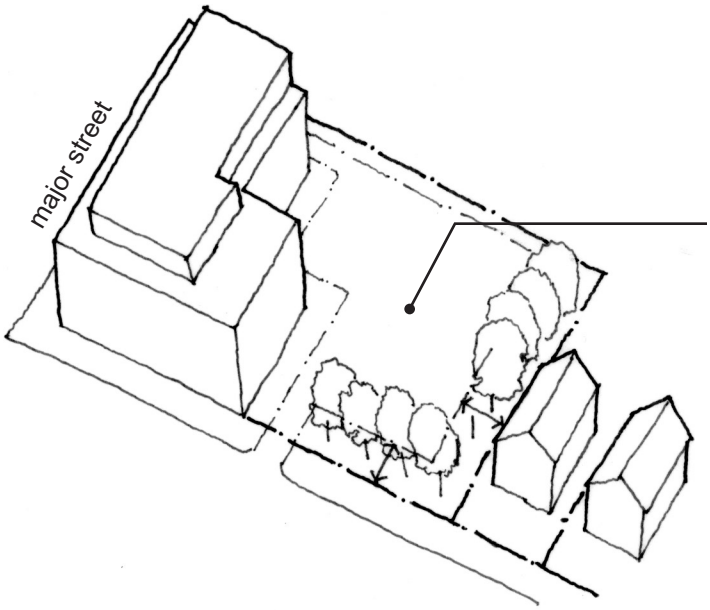
Cross street views from residential or abutting areas of the City onto major streets should be evaluated. Several cross streets such as Fayette, Edwards, Home, Pond, Summer, Myrtle, and Lenox Streets all terminate in building facades on Rantoul Street. Special attention should be paid to the design of these facades.

Street walls direct one's view down Main Street toward two prominent civic buildings. (Camden, ME)

Curve in Rantoul Street allows view of building facades.

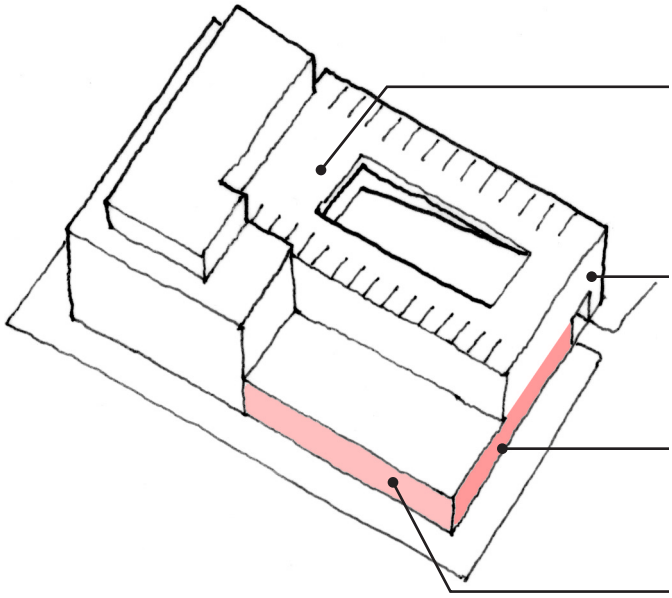
View looking east to Baptist Church.

P1 - Location of Parking



Parking should be located behind the building with access from a side street, through-building connection, or along the building's side. Ensure adequate lines of vision for cars entering the street from parking.

P2 - Parking Structures



Locate parking structures in center of block.

When parking structure walls face the street, elevations must be designed and have openings no greater than 65% of wall surface.

Where structures abut street, provide grade level building uses or largely enclosed wall surfaces that simulate building face.

Ring structure with lower-rise active uses, such as retail

Parking

Large buildings, whether new construction or renovation of existing structures, often require an increase in parking spaces over existing conditions. The quantity of parking spaces is determined by zoning regulation and negotiation through the public design process. Parking becomes part of these taller building design guidelines because of the importance of siting surface parking on larger parcels, the design of the exterior walls of structured parking, and their effects on the pedestrian realm.

In general, surface parking in front of the building is discouraged. Large areas of surface parking significantly erode the street wall, detract from the pedestrian experience, and often create pedestrian/vehicle conflicts. To avoid these problems, driveways and curb cuts should be minimized in number and width, and placed strategically to reduce pedestrian conflicts. Underground parking is recommended, but where not economically feasible, above-ground, structured parking is to be incorporated into the building design, and should be faced with usable building space where it fronts on major streets or open spaces. To the degree possible, vehicular drop-off areas should be located in the rear or sides of buildings with lobby spaces that connect both.

Where freestanding parking structures are proposed, their impact on the street and adjacent property should be minimized. Locating the structure on the interior of the block and facing the sides fronting the street with retail or other building uses is encouraged. Where this is not practicable, façades of garage structures should be designed to integrate with the adjacent buildings. Such garage faces should be no greater than 65% open, and incorporate architectural elements such as repetition of column or pilaster demarcation of structure, base and belt courses, concentration of architectural detail at pedestrian entries, corners, and cornice lines. Signage for the structure should be in keeping with the 2003 Beverly Downtown Design Guidelines signage section.

Encourage the use of on-street parking, especially in commercial areas.

Avoid large uninterupted expanses of parking surface.

Avoid locating parking in front of buildings, and garage entrances facing street.

Set back parking areas from the street and use landscape elements to screen parking areas and help reinforce the street edge.

Building parapet is accentuated with a change in material, color, projection from the building face, and greater articulation of brickwork to form a cornice.

The center section is a plain wall surface onto which detail is placed. Windows have sills and lintels of contrasting material and color, and periodic vertical zones with more detail are used to break-up the facade. Note also the “quoin” detail at the building corners.

The brick surfaces in the base are column-like rather than wall, and are interspersed with glass storefront. Detail occurs at entry arches, and limestone belt course of contrasting color and material.

In this wood building the protruding cornice also shows more detail and contrasting color.

This center section is clapboard with simple “punch-out” windows and trim of contrasting color. Corners also have trim boards of contrasting color.

The base of this building terminates the clapboard surface above, has greater detail and larger openings to better serve the retail functions of the ground floor.

Other Considerations

Materials Palette

The palette of materials from which buildings in a city are constructed play a major role in the character of the city. Historic cities such as Beverly are fortunate to have a wealth of older structures with interesting forms and details, and newer structures that continue earlier construction materials and methods. Generally, larger buildings in Beverly are constructed of masonry, predominantly brick, and smaller scale buildings are wood frame with wood clapboard or shingles. There is often a clear distinction between the building base, middle, and top, made of contrasting materials, rustication (use of defined blocks of masonry to create a bold textured look, sometimes by beveling the edges to form deep-set joints while leaving the central face rough-hewn), or protrusion or recess of contrasting parts.

Collectively, the size and scale of buildings, their relationship to the street and each other, their materials, and their form combine to make-up the 'urban fabric' of a city. This term describes the found condition of a city: its density, materials, and the degree to which the buildings 'fit' with each other. Beverly's downtown urban fabric is very consistent within these variables, and the material palette described in these guidelines is to provide a vehicle to ensure that future development respects this consistency. Consideration of new construction should question the fit and appropriateness of the proposal to the urban fabric at large, as well as the immediately adjacent buildings and properties.

The Post Office. Stone construction for an important civic building.

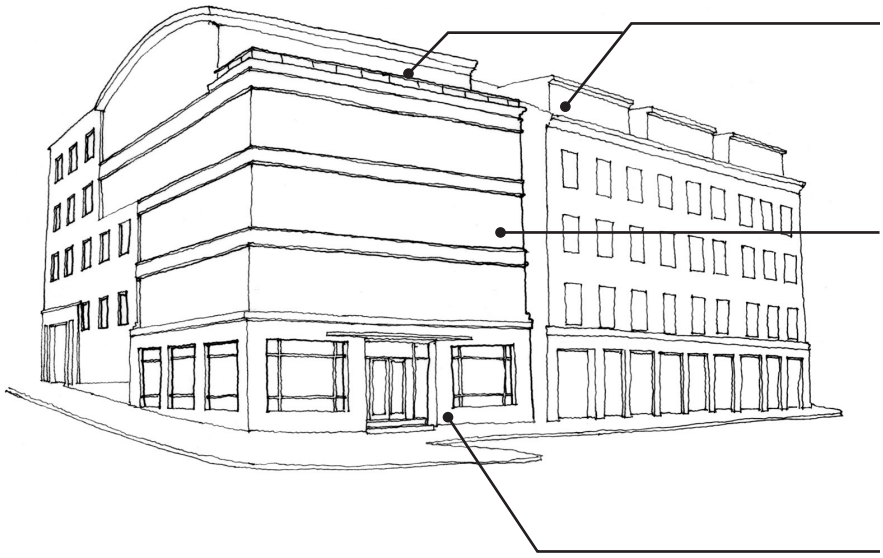
Brick used in larger buildings. New construction matches old. Note how some areas of facade are recessed to provide a human scale to entries or opening, to demarcate entry, or to provide visual interest.

Wood construction used for smaller scale residential and retail structures.

Good example of rusticated base floor built of brick with a stone base.

Two story base condition with greater detail at pedestrian level. Salem, MA

Contemporary vocabulary of new building is largely governed by horizontal building lines of its existing neighbor. Note the similarity of color in the front elevations, despite the differing materials. Also, the introduction of a new material, ship-lapped metal panel on the side street elevation responds to metal clad dormers of its neighbor. Despite the larger quantity of glass, the building is compatible with because of the way the glass surfaces align with adjacent window openings, and the proportion of the curtainwall mullion systems are related to the width of the adjacent building's windows.



Dormers of existing buildings are reinterpreted in the new building, but retain horizontal lines and similar setbacks.

In the middle section the vertical columns of windows in the existing building govern the height of the strip windows in the new building. Metal panels, similar in color to the existing brick, create continuity of wall surface despite differing window to wall surface ratios of the two buildings

The base continues a similar expression of stone-clad columns and larger storefront windows.

CASE STUDY: Portland, Maine
This new building illustrates a good relationship with existing, historic urban fabric and the use of a more contemporary architectural vocabulary. Building mass is largely determined by its context. Ground floor retail condition is continued across the block, and the expression of top/middle/base is clearly defined. Color palette, though not material, is consistent between the adjacent buildings.

Material of the Overall Building Mass

In order to better relate to the existing urban fabric, new buildings over 40 feet tall should have a primarily masonry exterior surface. Other materials such as metal cladding systems, glass curtainwall systems, or wood are encouraged as design features within the building to indicate different functions within the building, reduce the overall scale of the building, or to distinguish corners or set-back sections. The overall structure, however, should generally be recognized as a masonry clad building with smaller parts articulated with other materials. Because of their larger scale, new buildings should not replicate historic buildings, but designers should consider adjacent structure's "regulating lines" of cornices, belt, and base courses and relate to those features.

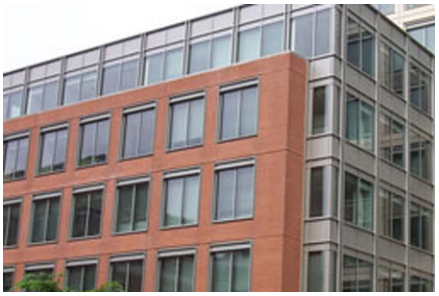
Buildings clad with an exterior insulation and finish system (EIFS) system are discouraged from the downtown study area as they are incompatible with the historic character of downtown Beverly. Similarly, glass curtainwall buildings are not part of the existing urban fabric, and buildings comprised primarily of glass should be discouraged. In addition to introducing materials foreign to existing conditions, these materials tend to lack appropriate 'scale of texture' that stone or brick's smaller unit size provide when used over large surfaces. The contrasting color and material of the masonry unit (brick or stone) and its joint (mortar or caulk), as well as the ability of these smaller units to be protruding or recessed, create a more animated surface and texture.

Exceptions to this guideline should be made on a case by case basis, and to some degree are encouraged as a way to provide variety within the urban fabric. The case study at left illustrates how a contemporary building complies with the height, setback, and horizontal lines of the existing, adjacent building, but introduces a varying palette of materials that still 'fits' with its historic neighbor.

Examples of a both a traditional and contemporary building using brick as the primary buiing material.

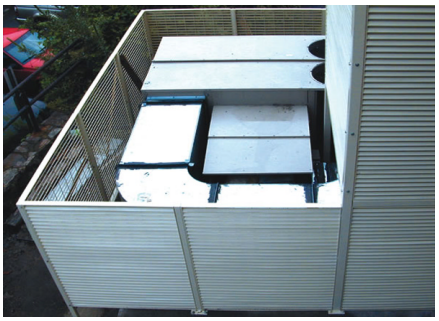
Glass curtain wall and EIFS systems are not appropriate as primary building materials as they do not fit with the historic character of Beverly's downtown

Traditional Materials:
Masonry and Wood



Contemporary Materials:
Glass and Steel - may be used to accent corner or setback elements.

Avoid locating mechanical systems on building faces.



Place mechanical systems and building services behind building facades or provide screening.

Building Element Materials

As discussed above, the primary building material for new development should be a masonry material. However, as feature, corner or setback elements may be composed of other materials and greater ratios of opening to wall surface as a means to break up the building mass, provide differing scales across the facades, or to mark building entries, features, or corners.

As a rule of thumb, glass curtainwall sections as building elements should be considered for no more than 25% of the total wall face. These elements should be allowed as a method to visually break up building mass and accentuate elements such as entry, internal stairs, elevators, or circulation routes, or specific program areas of the building such as ground floor retail. They can also be used to express the different parts of the building (i.e. base or top conditions, for example).

Through-the-wall mechanical fan or air conditioning units are to be avoided on the primary street faces of the building, and mechanical and/or utility equipment should be screened when it occurs on other faces of the building. Mechanical equipment on the roof should be located behind parapet lines so as not to be visible from the street, and screened with a continuous enclosure or painted to blend with the roofscape.

Masonry details on building corners.

Articulation of building entries.

Architectural detailing adds visual interest to the building facade.

Openings & Fenestration

Many existing large structures have masonry features such as quoins - large 'blocks' of bricks articulated at building or setback corners - flat or curved arches over openings, cornices, water tables, and rusticated walls and bases. A similar expression of detail or structure expression of an element should be considered in new construction.

Other feature elements of contrasting materials such as stone or architectural precast concrete should be utilized to provide visual interest and scale.

A richly detailed building on Cabot St.

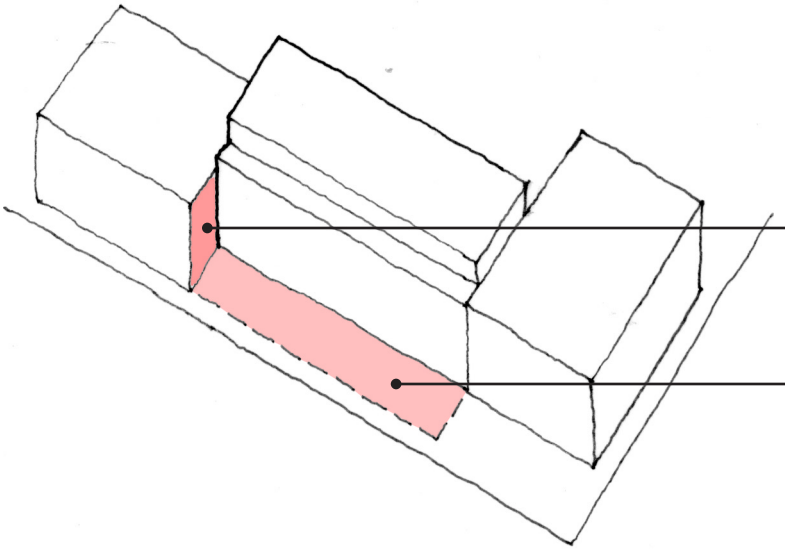
Adaptive Re-use & Expansion

Many buildings along Rantoul Street have been adapted to new uses, typically in the form of commercial additions to the ground floor of residential structures or conversion of larger buildings into residences, such as the old Edwards School. Sensitive re-use of existing buildings is an effective way to help preserve the architectural character of Beverly's downtown while still accommodating growth and re-development. Re-use and expansion of existing buildings should be sensitive to the building's siting, scale, materials, proportions and detailing, and can be seen as an opportunity to restore traditional, but deteriorating building fabric. Often openings, additions or connections made between several adjacent structures are good opportunities to introduce modern materials and design vocabulary, and accommodating modern conveniences and requirements (such as automatic and accessible entries) without sacrificing the historic or existing integrity of the structure.

Successful reuse of the old fire station for professional office space.

A contemporary, yet sympathetic transition between an older building and its new addition. (Toronto)

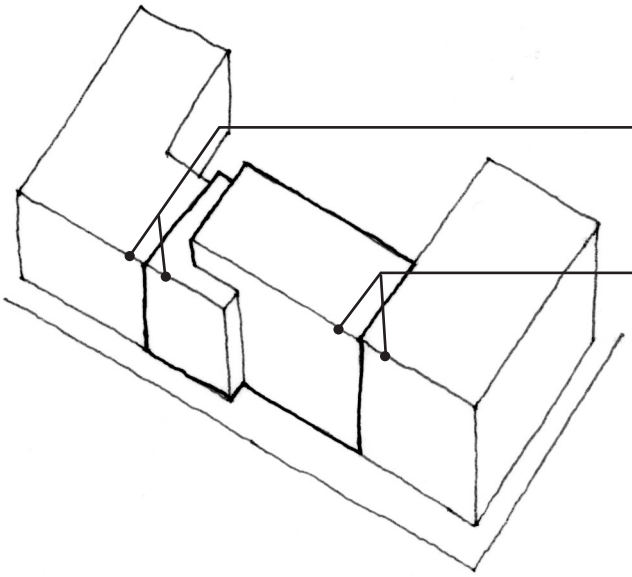
S1 - Creation of Public Amenity



Do not expose side wall of adjacent building

Building may be set back from street to create a public amenity such as a plaza or garden.

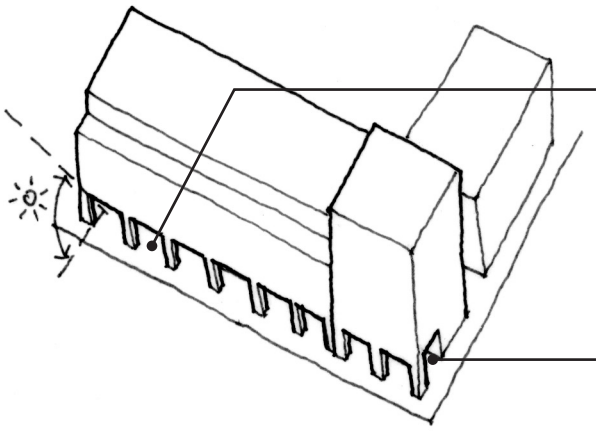
S2 - Resolution of Adjacent Facades



Lower building closer to street with lower base of new building

Cornice line of taller adjacent building continued on higher back block of new building

S3 - Arcade



Arcade positioned to allow penetration of sunlight

Where possible arcade should continue across entire block

Other Considerations

Site Planning Issues & Landscape

Much of how larger buildings relate to their context is determined by their siting. In general, new development should be placed on the site, and elements such as vehicular access, parking, services and utilities located to minimize the impact on existing adjacent structures and the public right of way.

Building Siting

The typical building pattern in Beverly is that structures are parallel to the street, and have front facades that align to create a continuous street wall at or near the property line. In some cases there are minor setbacks in the facade to create variety, and these conditions are discussed in the Street Wall section above. New construction should follow this pattern, but allowances should be made for a few buildings, particularly on larger sites, to have deeper building setbacks that permit the creation of a garden, plaza or other public realm amenity. Where the street wall is moved back into the block, careful consideration must be made for the appropriate treatment of the exposed side walls of the adjacent or new construction. Additional issues to consider in siting new development:

A slight setback in the facade allows for the provision of a public realm amenity, such as a cafe. (Salem)

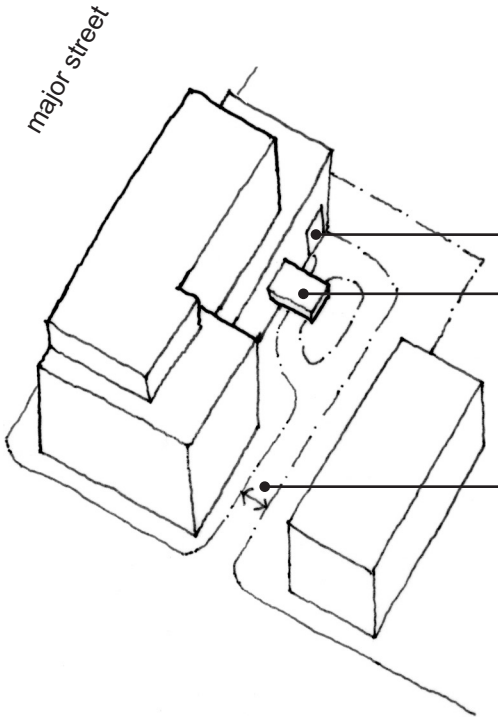
An arcade can provide cover for pedestrians. (Cambridge)

- Buildings should be oriented to minimize shadow impact, maximize exposure to light of adjacent buildings, and minimally affect wind conditions for the sidewalk and adjacent structures.

- The front facade of the building should align with adjacent faces to create a consistent street wall. On sites that do not have adjacent buildings, new development should align with the street face of other buildings along that street.

- Where the street face on either side of the new development varies in distance from the street, the new building should resolve the difference.

- Publicly accessible arcades that permit pedestrians to walk under cover are encouraged, provided that they have sufficient solar exposure so that direct sunlight can penetrate their ground surfaces for at least 4 hours per day. Arcades on the north sides of buildings are discouraged as ice build-up and reduced moisture evaporation are problemmatic in this climate under these conditions.



S4 - Internal Site Circulation

Place loading docks and ramps to parking not facing major streets.

Where possible, provide drop-off at rear of building

Minimize driveway width

Use richer materials such as brick, granite pavers or precast concrete pavers in parking lots and driveways.

Vehicular Circulation

The amount of site surface given over to vehicles as parking, driveways, drop-off areas, and service access, largely determines the experience of the pedestrian. As much as possible, vehicles should be excluded from the zone between the building face and the street, and every effort should be made to decrease the width of driveways, curb cuts, and vehicular pavement where it crosses the sidewalk. Two-way driveways should be a maximum of 25 feet wide. Attention should be paid particularly to reducing turning radii of driveways onto the street wherever possible.

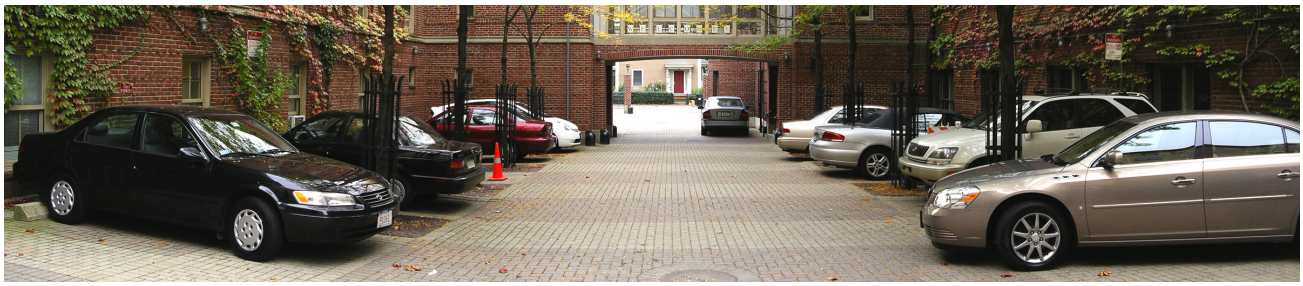
Decrease the width of driveways and curb cuts.

Elements such as drop-off zones and porte cocheres should occur on the side or rear of the building, with through lobbies connecting these features with the street. In this configuration driveways which are widened or configured as loops do not occur at the front of the building, compromising the width and experience of the sidewalk, or necessitating the building be pulled away from the street and disrupt the continuity of street wall.

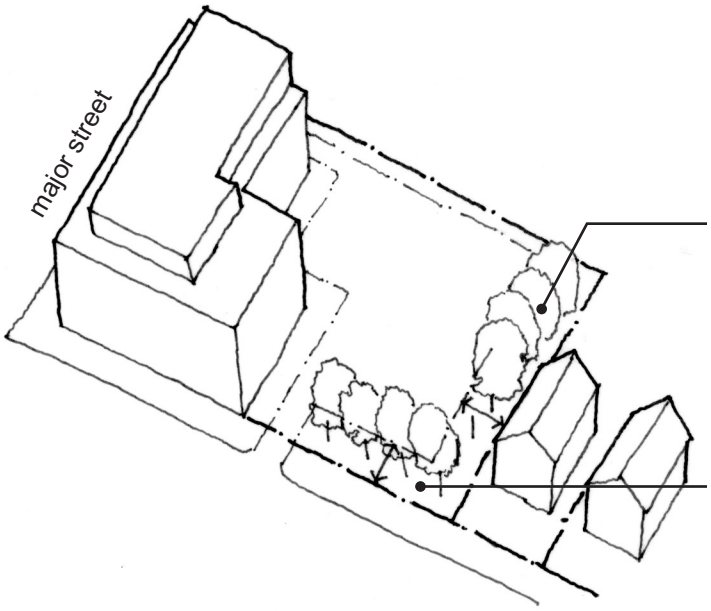
A mid-block landscaped courtyard provides for automobile drop-off, parking access and other servicing. (Toronto)

Concrete and asphalt are the most common paving materials used in parking lots and driveways. Although they are suitable for many conditions, large uninterrupted areas of these materials should be avoided when possible. Traditional paving materials such as brick or granite pavers offer rich textures and natural tones, which blend well with the commercial environment. These traditional materials should be used whenever possible, although new materials such as precast concrete pavers can be an appropriate compromise. Stamped or dyed concrete or asphalt are discouraged in public areas along major streets or in immediately adjacent spaces. In areas of slow traffic, low parking volumes, and minimal slopes, crushed stone may be used for parking areas to increase storm water infiltration and reduce run-off. Visible asphalt parking surfaces are discouraged within 20 feet of major streets such as Cabot or Rantoul Streets, where special paving surfaces should be employed as transition between the street and parking areas.

Avoid the use of asphalt for parking areas and driveway aprons adjacent to major streets.



S5 - Landscape Buffer



Provide landscape buffers of no less than 8 feet.

Where buffers occur along major or side streets they should be composed of trees and shrubs, groundcover or perennial beds

Parking

Surface parking should only occur at the rear of buildings along major streets. The perimeter of surface parking should allow a minimum setback of 5 feet, however a setback of 8 feet is encouraged to permit a generous screen of both trees and shrub/understory planting along abutting properties or public rights-of-way. Landscape screens should be vertically separated from the parking surface by a concrete or granite curb to protect the planting zone from car damage and polluted storm water runoff. Adequate drainage should be provided so that no storm water leaves the site or flows onto public rights-of-way.

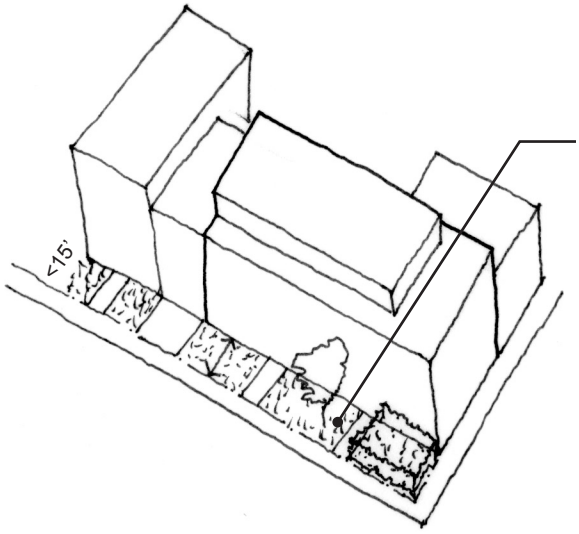
An effective buffer between parking and the pedestrian realm. Ideally, however, the landscape buffer would be more generous with a consistent wall of plant material separating the sidewalk and parking.

Building Services

All buildings have front and back functions, and to the degree possible these functions should be made distinct and distributed appropriately on the site. 'Front functions' such as public entries and lobbies, storefronts, or public amenities establish the building's relationship with the street. 'Back functions' such as loading docks, parking, utility connections and meters, transformers, power generators, mechanical equipment, dumpsters and compactors, and ramps to parking or loading facilities should be located at the rear of the building and appropriately screened or buffered from adjacent structures and the public view. These elements should be located with consideration to issues of safety, noise, odor, and visibility. Utility areas enclosed by constructed fence or wall structures and screened by planting are encouraged. Where possible, service areas, alleys and loading zones should be shared in block centers among abutting buildings. Transformers, generators, and vents should be housed in below-grade vaults or incorporated into the building design, and not allowed to be at-grade along major streets. Egress stairs should similarly be addressed by careful incorporation into facade design and not appear to be haphazardly placed.

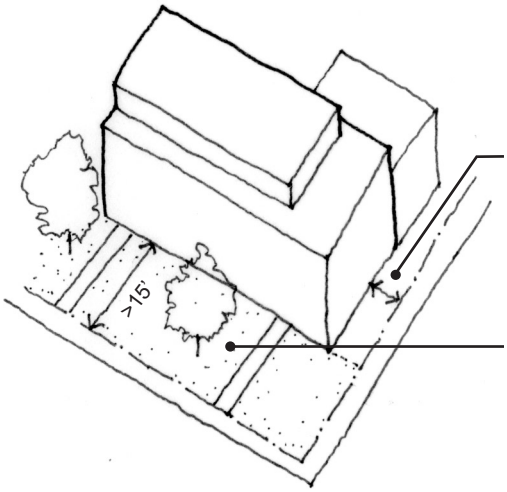
Locate builidng services at the rear of buildings and screened from public view.

S6a - Small Setbacks



Modest setbacks in street wall should be planted heavily with small trees or shrubs and ground cover or perennial beds

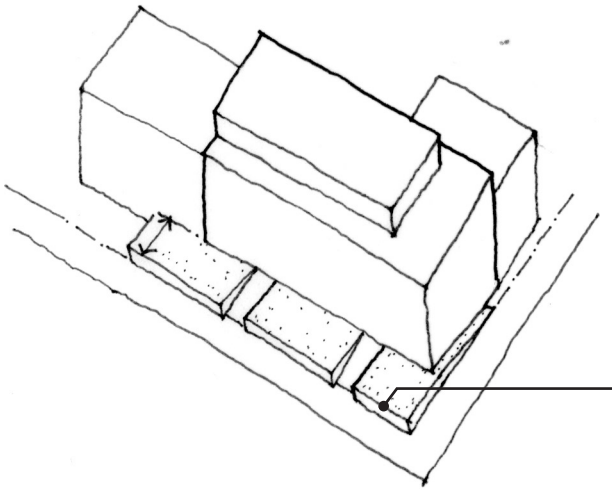
S6b - Large Setbacks



Shallower setbacks on sidestreets should be planted with shrubs and groundcover rather than lawn

Larger areas can be planted with lawn and freestanding trees

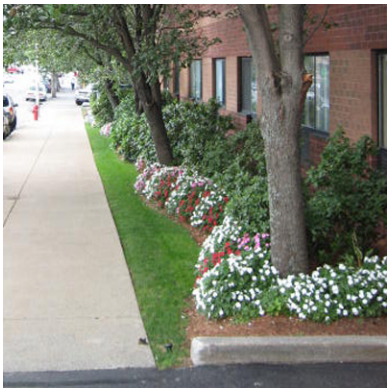
S6c - Change of Grade



Introduce low retaining walls, planting zones, or fences in areas where street wall is set back from sidewalk

Building Entries & Approaches

Entrances to buildings and their approaches are important elements of the streetscape and help establish the level of activity along a street. Generally, providing multiple entries to a building, particularly for buildings with longer frontage, is encouraged. Providing frequent connections to the street is one way that buildings lend a feeling of safety for pedestrians. Changes in pavement that announce a building entrance and help to create a transition from public to private realms are encouraged as a way to enrich the streetscape. Where appropriate, other transitional elements such as low walls, waist-high decorative fencing, and planting zones are encouraged as a way of providing scale and interest to the pedestrian zone. Fences should be metal and finished with a durable finish. Approaches should be direct, rather than meandering, which results in worn 'desire line' paths across planted areas. Fences over waist height, or of solid material that does not allow for visibility onto the building site, are discouraged and detract from the quality of the urban realm.



Shallow setbacks should be heavily planted with small trees, shrubs and groundcover or perennials. The use of lawn, however, should be avoided in small quantities. (Portland, OR; Beverly)

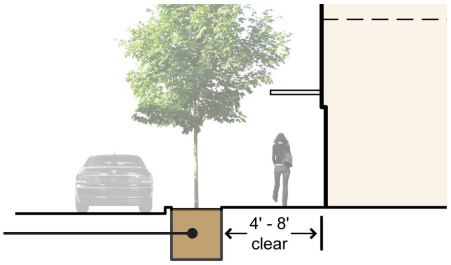
Moderate setbacks can be planted with lawn and freestanding trees

Introduce low walls, fences or changes in grade where setbacks occur.

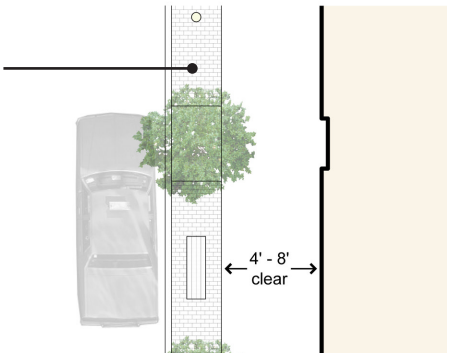
Curbing should be new or reset granite.

Sidewalks should be constructed of brick or broom finish concrete with brick accents as used in other parts of Beverly.

The sidewalk should be of adequate width to accomodate street tree planting



Provide 'furniture zones' for the placement of benches, light poles, hydrants, street signs, street trees, etc. These zones can be demarcated by changes in paving.



Streetscape

The quality of streetscape is a primary factor in the determination of urban character and visual quality. Elm-lined streets were the quintessential image of most American towns at the turn of the last century, and recently much investment has gone into improving streets as the primary public spaces of today's cities and towns. This investment has been by both public and private entities, and many municipalities are adopting policies of requiring large projects to take responsibility for the construction of streetscape adjacent to the development, that is maintained by the community. As streetscape is just as important on residential and commercial streets, it should be considered on both the major and side streets in the areas governed by the design guidelines. Proposed streetscape guidelines include:

- Major street streetscape improvements should include new or reset existing granite curb to a height of no less than 6" and no more than 8" from the top of street pavement. Driveway aprons should be of materials matching the sidewalk and utilize ramp flares at no more than 1:12 slope to meet Americans with Disabilities Act (ADA) and Massachusetts Architectural Access Board (MAAB) accessibility standards.

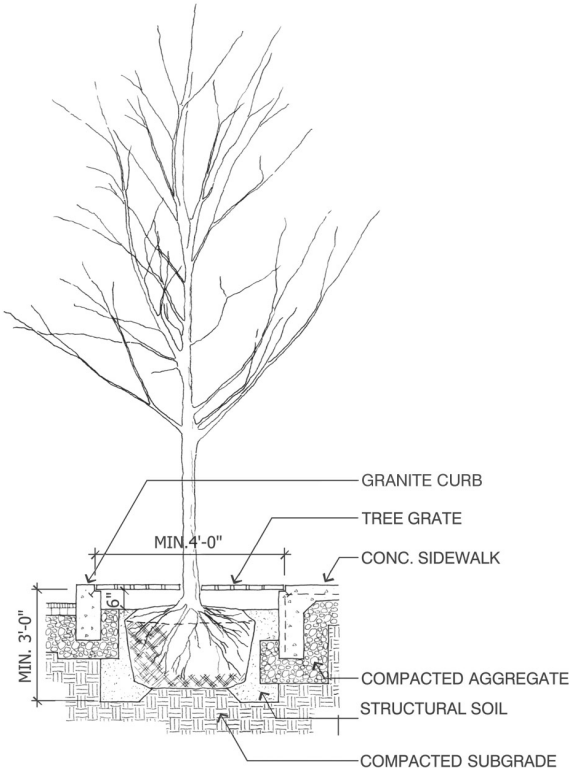
- It is desired to have sidewalks with a generous unobstructed, or clear zone, width for pedestrians. The ADA minimum clear width for sidewalks is 4 feet.

- Sidewalk widths should be adjusted to provide a continuous curb line and street wall. Where appropriate and recommended through public design process, wider sidewalks in commercial areas to accommodate cafes, seating, kiosks, or more significant planting are encouraged.

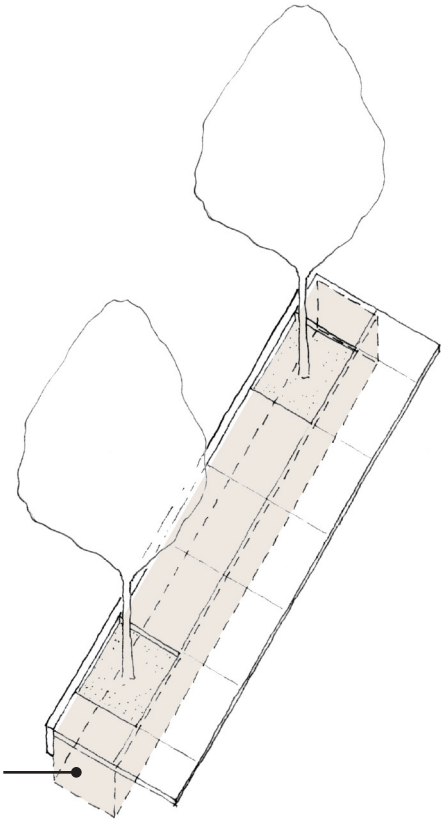
- Sidewalks should be broom finish concrete with brick accents, brick, or concrete unit pavers.

- Sidewalks should be organized with "furniture zones" for the placement of street furnishings, plantings, or signs, lighting, signal control boxes, fire hydrants, etc. This zone should be between the pedestrian zone and street. Paving changes in color and/or material between these zones is encouraged as a way to add diversity and interest to the sidewalk.

Some examples of existing streetscape materials and conditions along Rantoul St.



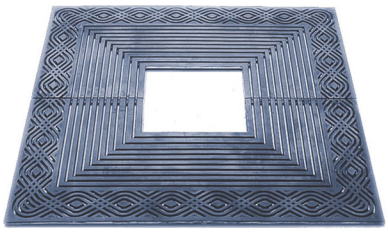
Typical tree planting detail with tree grate.



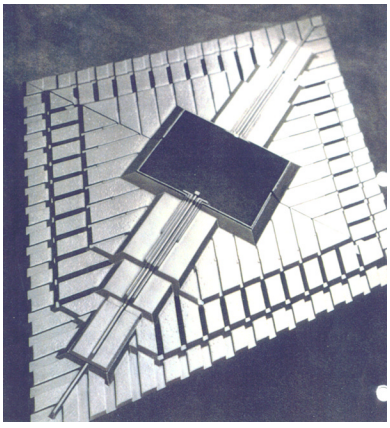
A continuous root zone beneath the pavement allows for increased water and nutrients availability and healther street trees.

Tree Planting

Trees in urban settings are often subject to increased environmental stress. Restricted rooting space limits the trees' access to water, nutrients, and oxygen. Adequate rooting space should be provided in order to increase the health of trees planted in this urban setting. Tree pits should be a minimum of 4 feet in width, 6 feet in length and 3 feet deep. Wherever possible tree pits should be connected, either at grade or below the sidewalk surface in order to increase the amount of rooting space available. Structural soil may be used underneath paved areas to provide rooting space for street trees while maintaining structural support for the pavement. (Information on structural soil is available at www.hort.cornell.edu/uhi/outreach/csc/article.html). Tree grates may be used to help protect from soil compaction in areas of high pedestrian traffic, and may also serve an aesthetic or interpretive function within the context of downtown Beverly.



Tree grates can be a decorative addition to the streetscape while helping to protect from soil compation.



Custom tree grates at the Seattle Seahawks Football stadium and Rockefeller Plaza in New York reflect the character of the place.